

AUGUST 1979

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Nation's Business

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HOW TO ORDER SOUP IN CANNES



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CODES FOR PRINCIPAL CITIES IN FRANCE (33)

Bordeaux	56	Lille	20	Reims	26
Clermont-Ferrand	73	Lyon	78	Rennes	99
Dijon	80	Marseille	91	St. Etienne	77
Grenoble	76	Nice	93	Strasbourg	88
Le Havre	35	Paris	1	Toulouse	61



Bell System

Fidelity bonds from The St. Paul.

Because too many employees don't consider taking from the company stealing.

They may call it borrowing, or feel you owe it to them, or that you just don't pay them enough. But the truth of the matter is, according to the U.S. Chamber of Commerce, employee "borrowing" in America has now risen to \$40 billion a year.

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The Nation's Business WASHINGTON LETTER

► AT \$1.50 A GALLON, you'll have plenty of gas?

You've probably heard that.

Don't believe it.

A number of experts in the energy field and economists familiar with the problems don't buy it. Their best guess?

We're going to have energy problems--including spot shortages--for a long time to come.

Experts recommend you plan your business operations accordingly.

► WHAT CAN YOU AS A BUSINESS PERSON DO?

1. Improve the energy efficiency of your operation. Reduce energy consumption, cut energy costs.

2. Start concentrating your marketing ideas on the realities of tomorrow:

If you cater to tourism, begin to consider locals. Vacationers are going to stick closer to home.

If your business is on the edge of a large city and has a big drive-in trade, consider soliciting orders from the community by mail or telephone.

Target your audience and reach it--and let it reach you--via the most energy efficient means.

Experts say these are the kinds of changes you should be thinking about.

► THERE ARE 240 oil refineries in the United States, says American Petroleum Institute, and likelihood of any significant increase in that number is bleak.

Why?

No one wants a refinery in his or her backyard.

It's as simple--and as difficult--as that.

Consequently, domestic production is basically limited.

Further, under today's political,

regulatory climate, gaining approval to build a new refinery is nearly impossible.

► MORE REFINERIES are needed, but first a fast-track licensing procedure is necessary, National Chamber told the White House in a letter last month.

Currently, eight to ten years of red tape are required to get a refinery on line.

Other Chamber recommendations include:

Develop synthetic fuels, but let private industry do it via incentives--not through a federal energy development company.

Remove federal price controls on gas at the pump; speed up schedule to de-control oil at the wellhead.

Scrub windfall profits tax proposal and idea for an energy security fund.

Accelerate development of oil, gas leasing offshore and on federal lands.

► ACID RAIN is a problem of growing concern to the Carter administration.

What is acid rain?

It comes from emissions of sulfur dioxide and nitric oxide that mix with water in the air to form a mild acid, similar to lemon juice. This falls to earth as rain--hence, acid rain.

Some scientists say it is potentially devastating; the cumulative effect of rain over the years has already killed fish population in some lakes high in New York's Adirondack Mountains.

Kay H. Jones, environmental committee member of American Society of Civil Engineers and adviser to federal Council on Environmental Quality, says Norway and Sweden estimate a \$50 million to \$100 million annual loss to fishing industry because of acid rain from northern Europe. He says some environ-

mentalists are asking: If fish are dying because of acid rain, what is happening to the crop and forest lands?

► **USE OF FOSSIL FUELS**, mostly coal, is main cause of acid rain--and emission of pollutants is on the increase.

In fact, federal data show that in 1955-1975, sulfur dioxide emissions went up 50 percent, nitric oxide emissions about 130 percent.

Why? Increased energy production. Cars also contribute to nitric oxide problem.

Most U. S. plants meet emission standards, but small amount of pollutants still escapes into air. It's nearly impossible to get it all, and more energy production means more emissions, when tallied cumulatively.

► **BIG PUSH** to convert to coal from other energy sources heightens concern among administration officials and others about acid rain.

Major federal-industry study effort is already under way, with main kick-off of activity expected early next year.

Included will be data collection, on-site studies, and monitoring of air currents to find, for example, how much sulfur dioxide from a Midwest plant gets to the Northeast.

Effort will cost up to \$24 million in first two years, probably more later.

► **LEGAL MANEUVERING** over which union officially represents Seattle First National Bank employees could lead to unionization push.

"There is a feeling we are the focal point of a union movement into the largely unorganized financial industry --in fact, the service industry in general," says Patrick M. Fahey, a Seafirst bank vice president.

He adds that because employees of Seafirst have been organized since 1938, and because Washington state work force is highly organized--about 35 percent--Seafirst appears to be logical target for a union jumping-off point.

Seafirst is 22nd largest bank in the United States and only major bank whose employees are organized. Unions in-

involved are an independent local and the large Retail Clerks International Union. Retail clerks recently merged with meat cutters union to form 1.3 million-member United Food and Commercial Workers Union, largest in AFL-CIO.

► **UNION MEMBERS** are only employees allowed to approve union affiliation, according to ruling of National Labor Relations Board.

Slightly more than half of Seafirst workers are union members, and only half of them approved the retail clerks' move to affiliate. This means that about 75 percent of Seafirst workers did not express opinion in the matter, at least via a ballot.

Based on current NLRB stance, however, retail clerks union says it is official one for Seafirst employees. Seafirst management says not so, that union is new to Seafirst and, therefore, all eligible bank employees should have a chance to vote.

In first round of legal maneuvering, NLRB sided with union. Seafirst has appealed to the agency.

Mr. Fahey of Seafirst says that bank will take issue to the appeals court if necessary.

► **A NEW SERVICE** provided by a United Nations newspaper, Development Forum Business Edition, should be of special interest to consultants and contractors who bid in the international market.

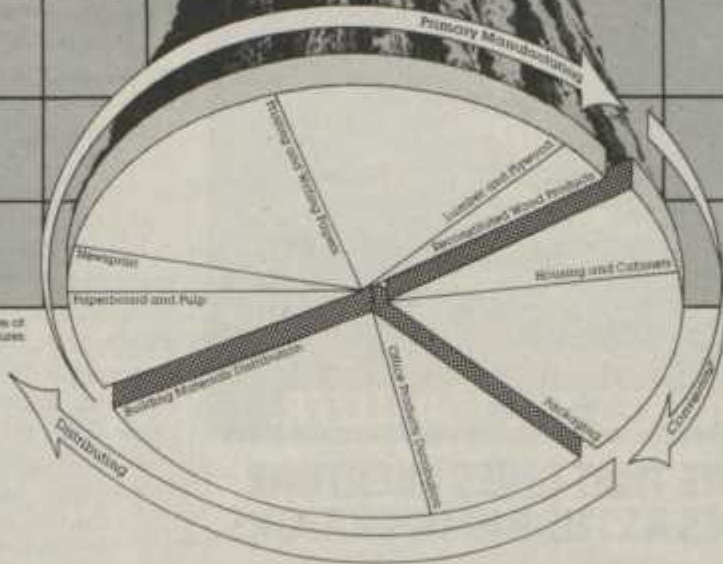
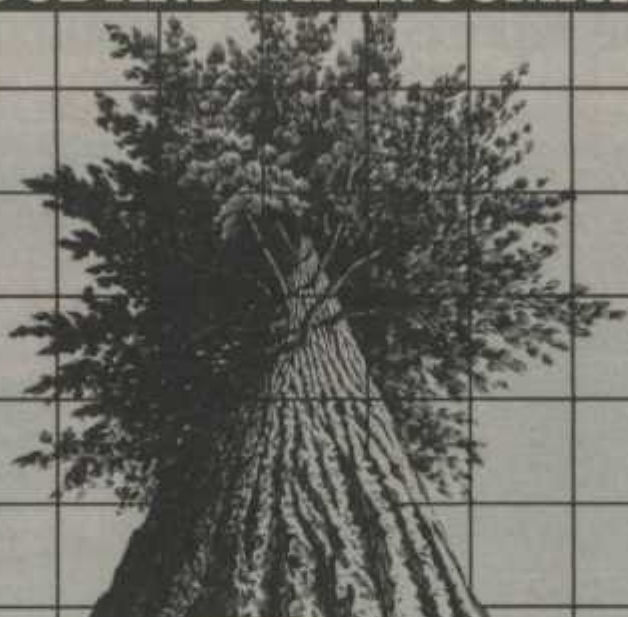
The service, announced last month, is a monthly summary of proposed projects likely to be financed by the World Bank. To be included in the future will be proposed projects likely to be financed by other international banks.

The publication will discuss the projects in some detail.

There is a charge. Contact: World Bank, Room E-1035, 1818 H St., N. W., Washington, D. C. 20433.

► **FEDERAL TREASURY** in fiscal 1978 issued more than 600 million checks, made 88 million payments by wire, and paid more than 222,000 vouchers under a letter-of-credit system, says an agency official.

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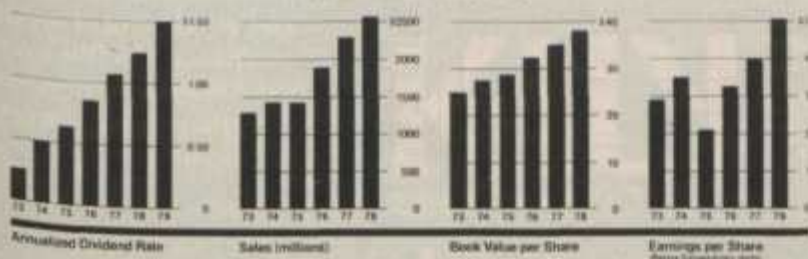
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The House Organ Updated

James J. Kilpatrick's comment about "Mickey Mouse house organs" betrays an unfortunate lack of information. [A Short Course in Media Relations, June]

Mr. Kilpatrick appears to have

based his assessment of employee communication on another fond look back to his newspapering days in Richmond, Va., days when a company's total commitment to communicating with employees consisted of monthly pap-

dished up in the company house organ.

Today, fortunately, most companies are dealing with substantive issues that affect all aspects of a person's working life, and many organizations are discussing, where appropriate, the same issues *60 Minutes* deals with—layoffs, strikes, payoffs, consumerism, competition, the environment, and discrimination, among others.

The methods of communicating with employees have changed as dramatically as the messages—television and telephone hotlines are used to impart information.

Today's profit-minded corporations collectively spend \$1 billion a year to keep employees informed and aware.

Obviously, not all organizations are spending their money wisely, and some still have communication programs that smack of the good old days when you didn't have to tell an employee anything except that he or she was lucky to have the job.

Fortunately, most employers are more aware of what's happening in the profession of organizational communication than Mr. Kilpatrick—228 million people are reached regularly by business communicators, more than three times the total circulation of every daily newspaper in the United States and Canada.

JOHN N. BAILEY
International Association of Business
Communicators
San Francisco, Calif.

Six cheers

Six cheers for James J. Kilpatrick's media relations comments. As a former newsman, I strongly endorse his suggestions. Unfortunately, they will fall on a lot of deaf ears!

One thought from a person who makes his living as a communicator to an audience of 4,200 employees: Maintain the same level of honesty with your employees as you know you must with the media.

You can rarely influence the quantity and quality of media material, but you can completely influence that which comes from within the company. So make it good; make it honest.

I approach my audience the way any



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newsman would: Try to provide answers, some thought-provoking material, and a touch of entertainment.

The day of Mickey Mouse compilations in the employee house organ—what a disgusting word—is hopefully near an end.

JOHN M. BERNARD
Communications Specialist
Omark Industries
Portland, Oregon

Ten cheers

Three cheers—no, *ten* cheers—to James J. Kilpatrick for his advice to company employees who must deal directly with the media.

It has always been a source of curiosity to me that the various business schools and advanced management training schools have not included media relations in their curricula.

Also, Mr. Kilpatrick could have said more about the communicator workshops conducted by the Chamber of Commerce of the United States. While with a major chemical industry association, I sent 15 individuals to three workshops customized for our purposes. The results were outstanding. The association and the participants were most pleased with their improved ability to handle stressful interviews.

Considering both its low cost and high success, the National Chamber's communicator workshop program is excellent.

JOHN S. RUCH
PPG Industries
New York, N. Y.

Archaic reasoning

Sen. Edward M. Kennedy's reason for rejecting James J. Kilpatrick's argument of returning the District of Columbia to Maryland is the noncultural alignment between Maryland and D. C. [Letters, May] Following that line of argument, we should send representatives to Congress from every major city in the country.

The obviously emotional statement of "taxation without representation," is an archaic historical statement that doesn't reflect any reality. Residents of D. C. exert a powerful influence on

lawmaking through far more channels than the average citizen has. They are there. They have access to the multitude of local organizations that proliferate in a lawmaking city.

Are D. C. residents blighted? Are they income deficient, gas short-changed, drought stricken, persecuted, unduly taxed, oppressed, educationally deficient?

Is their standard of living less than similar cities? Is the flow of merchandise into the D. C. area restricted? Is it hard to purchase necessities or luxuries? Are D. C. residents denied due process of law when arrested? Are parks and recreational areas taken away from the D. C. citizenry?

Sen. Kennedy should be specific in his arguments for D. C. representation.

GERALD G. MAXWELL
Lubbock, Texas

Good work

"Of Red Herrings and Real Profits" [May] is an outstanding editorial and should be directed at the entire country instead of only the 1.2 million who see your magazine. If business foregoes regulation and pursues laws of supply and demand, our economy will be much stronger.

J. A. FITTS
Urbandale, Iowa

A bit much

Your editorial, "Of Red Herrings and Real Profits," was intellectually unique. It indicates that government and its policies should be blamed for all our economic woes. I would not say the indictment is inaccurate, but to assert that the business community is faultless in our economic chaos is just a bit much.

There is a rumor that a wee bit of greed could exist in the petroleum industry, nothing inflationary, of course. A sparkling example of corporate socialism is the government's guarantee to utilities of financial return.

F. C. FAUST
Fort Myers, Fla.

Less interference

Congratulations on your editorial, "Of Red Herrings and Real Profits," citing the problems inherent in too much government regulation. In retrospect, we certainly wouldn't have much of our present inflation and energy problems if government didn't interfere so profusely.

At this point, our best bet might be

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to deregulate our markets and allow industry to increase our supply of energy as rapidly as possible.

As a suggestion, business should begin a renewed thrust into space research and exploration. Space offers a new frontier for human growth, encourages the development of spin-off technologies needed to help solve the environmental and energy problems that we now face, and drastically alters the "doomsday" scenario often presented by some of today's economists.

PAUL JUSTUS
Mission, Kans.

Good reading

I am a student of aeronautics at Dowling College in Oakdale, N. Y., and a member of the American Institute of Aeronautics and Astronautics and of the American Association of Airport Executives. The more that I study the air transport industry, the more I am entranced by the entire transportation network that our society has developed.

I would like to thank you for the marvelous article, "Passenger Transportation: People in Perpetual Motion," that appeared in the May issue of NATION'S BUSINESS. The holistic style of the article managed not only to explore all modes of present-day transportation but also to present the reader with intriguing historical, sociological, economic, and technical perspectives.

The article was one of the most interesting and energizing works that it has been my recent pleasure to read.

EDWARD STARKMAN
Oceanside, N. J.

Form response

I read with interest the proposal for one-cent postage on letters written to congressmen expressing personal views. [Washington Letter, June]

I have written many 15-cent letters and have received back form-letter responses, which indicate a lack of interest on the part of my representatives in Congress.

If congressmen don't start hearing the American public on such subjects as inflation, welfare, government spending, and energy, they are going to find themselves out of office.

W. WALTER BISHOP, JR.
*Marketing Manager
Envirodyne Engineers
St. Louis, Mo.*

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That Good Old Country Living

SWEET ARE THE USES of adversity, observed the old Duke in *As You Like It*, and he went on to praise the resources of life in the forest of Arden. There he found "tongues in trees, books in the running brooks, sermons in stones, and good in every thing."

In this, the summer of our discontent, the Duke's sunny philosophy has much to commend it. Most of us are surfeited by economic forecasts of doom and gloom; we have had it with the oil cartel; we are bored or overwhelmed by the debate on arms limitation. Is there nothing else to write about but the impending recession? Has civilized conversation ceased at the gas pump? I am minded to put such weighty stuff aside and to offer nothing more substantial than a few hammock reflections from the Blue Ridge Mountains of Virginia. The old Duke knew what he was talking about.

We have lived in Rappahannock County, my wife and I, for the past 13 years. Home for us is a 37-acre parcel of land 80 miles west of Washington, D. C., 16 miles from Culpeper, Va., and four miles from Scrabble, a wide place in Route 522. Scrabble is what you might call a one-sign metropolis. Most communities have two signs—one on entering, the other on leaving—but Scrabble survives serenely with one. The busy motorist, intent upon getting to wherever he is going, is inclined to remark as he approaches this singularly sleepy intersection: "We're coming to Scrabble, weren't we?"

THERE IS NOT VERY MUCH to Scrabble—not even its post office has survived former glories—but Scrabble is a kind of forest of Arden all the same. To live in the country is to live in the midst of marvelous things. If this were not so, farm families would have given up their labors years ago, and we would all be eating synthetic steak pills and chicken capsules today. For most farmers, and I mean most farmers from Virginia to Iowa to California and all points of the compass, farming is backbreaking work at high risk with low profits. The wonder is that anyone sticks with it. My neighbors stick with it because they find compensation in the unending excitement of the bursting seed, the newborn calf, the haunting scent of wood smoke in the autumn air.

More than anything, I suspect, the fascination of country living lies in the constant testing of oneself. I do not speak personally; we ourselves are still city folk transplanted, cosseted and comforted, swimming-pooled and tennis-courted, and I suffer no hardship more severe than a sunburned nose. The countryman grapples in the ring with Nature in season and out; it is one on one, a fight to the finish,

and sometimes the contest goes one way and sometimes another. The countrywoman, needless to say, shares equally in the battle.

The enemy takes a thousand forms. Here in Virginia's orchard country, the enemy is a blossoming that comes early and a frost that comes late; the enemy is the tobacco worm, the cutworm, the boll weevil, the fire ant, the yellow jacket. They call our county Rockyhannock County; the enemy is the unseen rock that breaks the mower blade. The enemy is rain, hail, drought, flash flood, and blazing sun. There are mortal enemies also—the striking



trucker, the faceless speculator, the unseen, mysterious forces that somehow fix a price on corn and wheat and hogs. Wherever he labors, the farmer goes to bed tired. The compensations keep him going.

This is our second experience in country living. The first came when my wife and I were 24, full of ambition and sweet innocence.

WE INVESTED in a rundown 90-acre farm near Richmond, Va. It had a barn, a chicken house, a tenant house, a prerevolutionary farmhouse, and a balky water pump known as a Rife ram. The patience, tolerance, and sunny disposition for which I am so widely known resulted in large part from struggles with that infernal contraption. The man who has taken apart a Rife ram in a freezing stream at 6 o'clock on a February morning, and reassembled the monster, and risen from his knees without apoplexy is better equipped to struggle thereafter with such adversaries as cold type, computer terminals, and the U. S. Postal Service. Such character-building is its own reward.

At this first farm, back in 1945, I learned to hate

chickens. Now, fried, baked, broiled, or transformed into such benefactions as Poulet Marengo, there is much to be said for chickens. Alive, there is nothing whatever to be said for these dumb birds. We got into the chicken business, raising hatchery eggs, through the guile and solicitude of a Richmond newspaperman named William Emmons Lloyd. He was an honest-to-God farmboy from Fluvanna who knew all about raising chickens. The idea was that I had the chicken house, and he had the expertise; we would both put up the capital. I would do all the work, and he would provide the supervision. It was my first experience with a consultant, and it gave me a lifelong perspective on the breed. We raised those damned chickens, gathered the dirty eggs, cleaned the fool things, fetched them by the case to the hatchery—and went bust on the venture. They say that nobody can lose money selling eggs to a hatchery. Don't you believe it.

THAT FIRST EXPERIMENT in country living lasted only three years, but they were good years. We learned our first lessons in the hard course identified as Biting Off More Than One Can Chew. A couple of city-bred novices ought not to plant 200 tomato plants and 20 long rows of beans. But we also learned the abiding satisfaction of spreading a table on which everything is homegrown or home-made: Our corn, our butter, our tender broilers. God and my wife make a good team. And now I supervise.

Country living is, in some ways, as repetitious as city living. On the surface there is no great difference in the routine of the factory worker at his lathe and the farmer on his tractor. After you've seen one acre of wheat, you've seen 'em all. More closely examined, rural life is filled with small surprises and little variations. The rhythm of country living is always present—the seasons, the tides, the cycles of growing and harvesting, the birth and death of animals—but within these immutable swellings and subsidings are the unexpected developments and the inexplicable mysteries.

RABBITS, FOR INSTANCE. For the past several years we have been knee-deep in rabbits here in Rapahannock County. Driving down to Woodville for the Sunday morning papers last summer, I could count 15 or 20 in the two-mile trip. Quail were as abundant. Groundhogs were waddling across the road or sitting placidly in the hedgerows like old men on front porches. For no immediately discernible reason, this year is different. There are more foxes this summer, or so we are told, but even a doubling of the fox population could not account for the astonishing drop in rabbits and quail. Groundhogs similarly have vanished. But the deer herds evidently are up. Driving through Louisa County late at night not long ago, we saw 13 deer feeding by the roadside, as awkwardly graceful as ballet dancers *en pliés*. Some cycles are up, some down. You never know.

Mind you, we make no complaint about the disappearing rabbits. For the past several summers we have gardened in a state of siege. Whole regiments of rabbits have educated us in the martial arts. This

year the vegetable garden looks like a Burpee's cover—lettuce, tomatoes, squash, carrots, three varieties of beans, cucumbers, cantaloupes—and not a rabbit to be seen. The black-eyed peas approach the hour of magnificent harvest. Soon our 12-foot-by-12-foot plot of corn will provide a few handsome ears for the dinner table. If you have never eaten corn on the cob, freshly picked, instantly but briefly boiled, and slathered with country butter, you have yet to discover what corn on the cob can be.

Country living, hard as it can be so much of the time, is not a matter of all work and no play. On a Sunday afternoon a few weeks ago, my oldest son talked me into an hour's canoe trip on the Thornton River. His five-year-old son came along. I had not been in a canoe since my own boyhood, and I had forgotten the contentment of easy-flowing water and the exhilaration of an occasional rapid. We floated peacefully along—grandfather, son, and grandson—and found ourselves in a world at least a thousand light years removed from my ordinary world in Washington.

WHAT WAS IT the old Duke said? Sermons in stones and books in running brooks? Exactly so. The Thornton flows between huge boulders, shawled in ferns and lichens. For how many eons have they felt the water's cool caress? The fading sunlight, striking through the woods, had the feel of an English cathedral: Stained glass, dappled shadows, an unseen squirrel scuffling like a sexton along the forest floor. A blue heron lifted pennant wings. The world was brown and green and golden, crayon-dotted with a lily's vivid orange. Then a thunderstorm blew up, the sky turned purple, and the heavens opened. We were suddenly as wet—as joyously, fool-grinning, drowned-rat wet—as if we had been in the river and not floating on it. Of such moments are grandsons made.

I don't mean to knock city living. A good part of me is still city boy, and the vitality of the city—the diversity, the hurly-burly, the stimulation of mind and senses—holds great appeal. The city has a beauty all its own, not to be disdained. Washington in April is the most beautiful capital city in the world, and Washington in October is a pure delight. Washington in August and February are something else entirely. My neighbors in these comfortable old mountains would not argue for a moment that country living is always beautiful, always inspiring; it is not. Along our country roads, day lilies beside the beer cans grow. The untutored visitor who reaches for a wild primrose may go home with poison ivy. We seem to be on an up cycle with hornets.

BUT TAKING one thing with another, it is marvelously pleasant to drink spring water, to see unsmogged stars by night, to plant a tiny plot of friable earth, and to see the miracle bean emerge in time. After a couple of hours of such hammock reflections, a man takes to shelling black-eyed peas with positive pleasure. And a sedentary journalist, drowsing over a book, quiets his workaday conscience with the thought that SALT II will come too soon. □

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THE ECONOMY

**Easing Pollution Controls
Key to Energy Victory**

Key industries—petroleum, coal, and utilities—generally support President Carter's revised energy program, but all share a major concern: Without substantial easing of existing environmental laws, the nation is likely to make little progress toward energy self-sufficiency.

Carl E. Bagge, president of the National Coal Association, says: "Given reasonable government policies and environmental regulations, we can mine all the coal America can build the hardware to consume."

Domestic oil producers are equally hamstrung by stringent air quality standards. Charles DiBona, president of the American Petroleum Institute, says: "We hope there will be a realistic appraisal of existing environmental laws and regulations; they affect both the production and conservation of energy."

Whether it will be feasible to hold imports to levels specified by President Carter without economic difficulties will depend upon the production of existing and new energy sources and on conservation, Mr. DiBona adds.

One of Mr. Carter's proposals would force utilities to cut their oil use in half by 1990 and switch to coal.

"The reduction in oil use by electric utilities has been the aim of the electric utility industry for almost six years now," says a spokesman for the Edison Electric Institute. "But regulatory and licensing obstacles have prevented any reduction."

"We're in favor of the President's program, but such a drastic reduction could result in financial hardship, particularly among small utilities," warns Alex Radin, executive director of the American Public Power Association, which represents some 1,400 municipally owned electric utilities nationwide.

"There will be a need for governmental financial assistance," he notes.

And that is an underlying concern for business.

The thrust of the President's proposed energy program seems to be toward more government control rather than less, according to Hilton Davis, vice president of legislative and political affairs of the Chamber of Commerce of the United States. "That's no solution; that's the main part of the problem."

**Congress Remains Cool
to Trucking Deregulation**

Despite pressure by the Carter administration to deregulate the common carrier trucking industry and growing militancy from independent truckers, Congress remains unmoved.

Administration predictions that deregulation would save \$5 billion annually in transportation costs, reduce inflation, and even save energy have not persuaded the Senate Commerce Committee to take action on the bill.

However, next year every representative and one third of the senators face the electorate, and the argument that truck deregulation will benefit consumers could be adopted by congressmen eager to be reelected.

Meanwhile, the Interstate Commerce Commission plans to use its administrative authority to create more competition among the carriers. The details are still being worked out.

CORPORATIONS

**Higher Tax Ceiling
Would Help Small Firms**

Under a graduated corporate tax bill proposed by Sen. John H. Chafee (R.-R.I.), taxes on the first \$150,000 of a firm's profits would be cut.

Current law assesses a graduated tax rate from 17 to 40 percent up to \$100,000 of a company's profits. At that point the regular 46 percent rate starts. Sen. Chafee's bill, being considered by the Senate Finance Committee, raises the graduated rate ceiling to \$150,000.

Smaller companies face a capital shortage, the senator explains. "The tax savings resulting from a change in the tax law could be used to expand and update facilities."

"While the \$8,000 tax savings may not mean much to General Motors, it could be a great benefit to a small firm in Pawtucket or Des Moines," he adds.

PHOTO: INTERNATIONAL HARVESTER



The administration's trucking industry deregulation proposal is parked in Congress, but the Interstate Commerce Commission may try to create more competition.

SEC Proposal Would Mandate Exchange Trading

A proposed Securities and Exchange Commission rule would force several hundred companies into the national exchange system.

The rule would mandate two tiers: Companies that meet the higher-tier criteria for assets, earnings, and number of shareholders would automatically become part of a national market system. Smaller firms meeting lower-tier criteria could apply to be part of the system.

Large corporations now decide whether to be traded over the counter or on an exchange, but more than 300 OTC securities would automatically qualify next year for national trading under the rule.

Congress mandated a nationwide electronic securities trading system under the 1975 Securities Acts Amendments.

SMALL BUSINESS

SBA Proposes Changes in SBIC Loan Standards

The Small Business Administration wants to broaden its standards for firms seeking assistance from small business investment companies.

Current standards specify that a small firm's assets must not exceed \$9 million, its net worth must be \$4 million or less, and its average net income for the two years preceding application must be \$400,000 or less.

SBA intends to change the financial yardsticks by deleting the assets size test, increasing the net worth test from \$4 million to \$6 million, and raising the net income test from \$400,000 to \$2 million. SBA decided to drop the assets size test of a firm because of "the technological contrasts between industries."

Displaced Business Loan Eligibility Rules Revised

More small businesses are eligible for displaced business loans under broader standards issued by the Small Business Administration.

The new standards stipulate that a small firm is eligible for a loan if it is displaced or economically impaired by construction projects funded only partly by the federal government. For ex-

ample, if federal funds are used to build any portion of a highway that cuts off normal business flow to a small company, the company could be eligible for a loan of up to \$500,000 at 7% percent interest over 30 years.

The displacing project may be constructed by state or local governments, or a public service company, but federal funds must be involved.

According to an agency spokesman, the funds can be used to reestablish a business, continue a business at its existing location, or purchase a new business of the same kind.

Clients Endorse Small Business Pilot Centers

An independent analysis of the Small Business Development Center pilot program shows that all eight university-based centers passed their first two years of operation with good grades. The Small Business Administration plans to select five more campuses by the end of September.

The 18-month study, done for the SBA by Bentley Clark Associates, Inc., of Yonkers, N.Y., analyzes the operations and management assistance of the eight original centers.

Two thirds of the centers' clients interviewed for the study said the centers' assistance was useful to them. The clients were mostly between 30 and 50 years of age, in business for the first time, grossed less than \$150,000 per year, and had profits of less than \$10,000.

The study did specify that several

centers needed to improve recordkeeping systems, follow up on clients more thoroughly, and include more handicapped and economically disadvantaged business people in the program.

In addition, the study recommends that all new centers be supervised by SBA's Washington office for two years. The number of centers should be expanded on a state-by-state basis through competitive bidding, but not more than ten new centers should be set up each year, the study adds. Each new center should receive initial funding of \$250,000 to \$300,000 from SBA and a matching sum from the state government, according to the study.

SBA agrees with two of the suggestions, but does not want to maintain a two-year control on center operations.

Overall, the study finds that 35 percent of small businesses ask for assistance in market research and 26 percent want help with accounting and recordkeeping or business planning and strategy. Less than three percent asked for help in procurement, research, technological development, and international marketing.

AGRIBUSINESS

Using Food to Counter OPEC Draws Criticism

Most major business and agriculture groups are opposing the idea of a government grain board that would have authority to control U.S. exports as a lever against oil price increases.



Lower the price of crude or no more food—that's the message of a current popular tune. But most business groups oppose using such a weapon.

Proponents of a bill to set up a grain board want to use it to hike American grain prices in retaliation against OPEC.

But groups such as the Chamber of Commerce of the United States and the American Farm Bureau Federation call the measure ridiculous.

"This legislation assumes that government and not the private sector can best serve the interests of American agriculture and the national economy," says E. Clinton Stokes, director of food and agriculture for the National Chamber.

The bill, he says, would reduce farm income, lead to export controls, increase the gap in the U.S. balance of payments, and impair the most efficient competitive marketing system in the world.

Under the bill, the directors of the Commodity Credit Corp. would be designated as the grain board and would have authority over export sales of grain, including barter arrangements and sales on bid offerings.

The proposed board would buy domestic farm products, sell them for export, and provide funds for the Secretary of Agriculture to make deficiency payments to the producer.

"This is just another way for the government to get its head in the door," says John Lewis, spokesman for the American Farm Bureau Federation. "We don't like using food as a weapon against the oil cartel."

The House Agriculture Committee plans no immediate action on the bill, and observers believe it will die there, just as a similar bill did five years ago.

Solar Grain Drying Assistance Available

Farmers who want to install a solar system for drying grain may now receive assistance through the Agriculture Department.

Since last fall, the department's pilot program to conserve energy has made farm facility loans for solar grain dryers available in ten states. Now, the program will be expanded nationwide.

Loans of up to \$50,000 at 10.5 per-

cent interest over eight years will be available from the Agricultural Stabilization and Conservation Service to finance 85 percent of the cost of construction.

"The loan program should encourage the further development and use of solar energy for drying grain and in other farm applications," says Deputy Agriculture Secretary Jim Williams.

TRENDS

Sunbelt Market Slated for More Growth

Will the Sunbelt continue as the fastest growing market area in the United States? Will the population of the New York metropolitan area decline?

The answer to both questions is yes, says the *Sales and Marketing Management Forecaster's Handbook*, a guide to marketing trends through 1989.

In the next decade, the 15 metro market areas with highest percent of change in disposable personal income will include 11 Sunbelt districts.

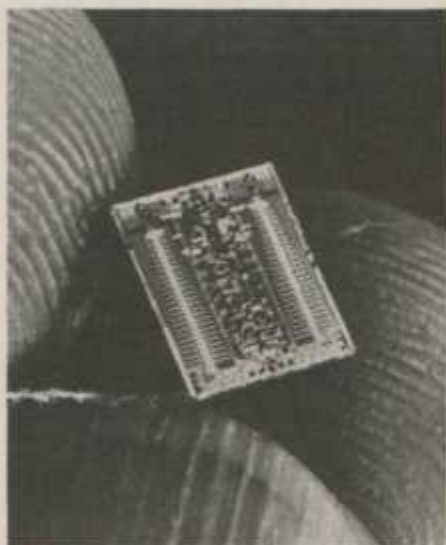
The five most highly populated metro market areas of today will retain their ranking through 1989. New York, the top area in population, will decline slightly from 9,420,600 to 9,178,800. Los Angeles-Long Beach will jump from 7,110,200 to 7,395,900; Chicago will go from 7,043,800 to 7,180,100; and Philadelphia, from 4,831,100 to 4,983,100. Detroit will decline from 4,344,500 to 4,239,200.

Foreign Inventors Claim Growing Share of Patents

The U.S. edge in technological innovation is slipping, statistics from the Commerce Department show.

"Lasers, transistors, and a host of other innovations attest to U.S. leadership, but innovative industries in countries like Japan and West Germany put too many of ours to shame," says the department's Patent and Trademark Office.

The office notes that fewer patents were issued to U.S. inventors in 1978 while the number granted to foreigners increased. The share of U.S. patents obtained by foreigners is now 37



Despite U.S. innovations like this unique computer chip, statistics indicate that America is losing its technological edge to foreign inventors.

PHOTO: BLACK STAR



The broad appeal of southern cities like Orlando, Fla., helps to explain why the Sunbelt will continue to be the fastest growing market area in the 1980s.

Why Phil and Robbie Hudson use a Pitney Bowes postage meter to mail as few as seven letters a day.

Walk into the Jet Janitorial Supply Company in historic Camden, South Carolina and you'll spot it right away. Cheek-by-jowl alongside the mops and brooms is a Pitney Bowes Touchmatic® postage meter. And thereby hangs a tale.

When Robbie and Phil Hudson began operating the business three years ago, they didn't have a postage meter. Robbie, who runs the office, recalls the frustration of using stamps in a hot, humid climate. "Stamps were a real hassle. Many times they'd stick together or come unglued. Some of our mail even came back. And when we ran out of the right stamps, we'd have to put on too much postage."

Since the Hudsons got their meter they wonder how they ever got along without it.

To Robbie, "the meter is super convenient! It's faster than stamps. And we're able to cut down on trips to the post office. What's more, you can't lose, tear or misplace a meter stamp. And when postage rates change, we don't have to fuss around with those little one-cent stamps."

Phil, who handles the ordering and selling, points out that "while seven or ten letters a day doesn't sound like much, they can add up to a real bother when you're busy trying to do ten other things at once." He also likes the way the meter stamp makes their mail look more professional. "I wonder what people thought of our operation before we had the postage meter."

Phil is currently devising his own little ad. And when it's ready, the meter will imprint it on all Jet Janitorial's mail, right next to the meter stamp.

Robbie and Phil have worked hard to build up their business to what it is today. The addition of their postage meter is "in our minds, one way of saying we're here to stay." No matter how big or small your business is, Pitney Bowes offers a lot of advantages.



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percent of the total, up from 20 percent in 1964.

Of the 44,150 patents issued to U. S. inventors last year, Californians received the most—6,009—followed by inventors in New York, New Jersey, Illinois, and Pennsylvania. Japan led the foreign contingent with 7,170; trailed by West Germany, 6,005; and the United Kingdom, 2,876.

GOVERNMENT

Chamber Opposes Sunset Principle for Tax Laws

Sunset legislation should be aimed at unwieldy federal agencies and programs, not at existing tax laws, says the National Chamber. Under the sunset principle, excessively costly, duplicative, or unnecessary programs can be phased out of existence.

To apply the concept to tax expenditures, which include special exclusions, exemptions, and credits, would be an "improper way to make changes in the tax laws," says Roscoe L. Egger, Jr., who testified for the National Chamber on Capitol Hill.

"A revenue measure such as an income tax differs inherently from a direct federal expenditure, and this fundamental difference requires exclusion of tax measures from the sunset process," Mr. Egger, a Price Waterhouse Co. partner, adds.

Forecast Is for Slower Growth in Federal Aid

State and local governments that plan on ever-increasing fiscal aid from Washington had better plan again. The Advisory Commission on Intergovernmental Relations reports that the federal money wave has crested.

While a 1979 estimate of \$82.1 billion in aid from the federal government is a \$4.2 billion increase over 1978, it falls far short of recent annual increases. The average growth over the past decade was \$5.9 billion annually. Fiscal 1980 shows a further decline in increasing federal funding, which will rise by only \$0.8 billion to \$82.9 billion.

In 1972 dollars, the increase is actually a decline of \$3 billion between 1979 and 1980.

Interstate differences in taxation and expenditure result in varying state dependence on federal aid.

PERSONAL

Interest-Bearing Checking Has Carter Endorsement

The Carter administration is supporting legislation to authorize interest-bearing checking accounts, already available in the New England states and New York, throughout the country.

"This is the kind of basic structural change I think we need to ensure the future of the country," says Treasury Secretary W. Michael Blumenthal.

The new checking accounts would pay one quarter of a percent less interest than the lowest passbook rate. The checking account rate would be uniform at all financial institutions, thus eliminating the quarter-point differential of savings and loans institutions.



Treasury Secretary W. Michael Blumenthal wants to allow interest-bearing checking accounts throughout the nation.

New Financial Futures Market for Big Traders

A big futures market may be opening for traders with big bucks.

The New York Futures Exchange, a wholly owned subsidiary of the New York Stock Exchange, has asked the Commodity Futures Trading Commission for approval to open a financial futures market by early 1980.

The futures exchange has requested trading of contracts in:

- 90-day U. S. Treasury bills (T-bills); \$1,000,000 trading units.
- 20-year U. S. Treasury bonds (T-bonds); \$100,000.
- British pounds; 25,000.
- Canadian dollars; 100,000.
- Deutsch marks; 125,000.
- Japanese yen; 12,500,000.
- Swiss francs; 125,000.

John J. Phelan, Jr., chairman of the futures exchange, says it would provide a "competitive marketplace with computerized communications and other systems."

INTERNATIONAL

U. S. Subsidiaries Are Optimistic

Top executives of subsidiaries of U. S. firms operating in foreign countries generally are optimistic about future business, according to a survey conducted for the Economic Policy Center of the Chamber of Commerce of the United States by the Gallup Organization.

About one quarter expects to significantly increase exports during the next year, while hardly any expect a significant decrease.

The majority of respondents, however, does not believe that tariff and non-tariff barriers will have a significant impact on their companies.

Fully 55 percent said they have investigated the possibility of selling products or services to China. More than three quarters have contacted the Chinese concerning trade, and half of them has or is near an agreement.

New Trade Agreements Could Create 130,000 Jobs

Administration foreign trade experts predict 80,000 to 130,000 additional jobs for American workers will result from the new multilateral trade agreements.

Tariff reductions should produce a net gain of 30,000 jobs, while new codes limiting nontariff trade barriers should result in another 50,000 to 100,000 jobs.

New jobs are expected in more than two thirds of American industries, especially in agriculture, electric and nonelectrical machinery, scientific instruments, and chemicals. □

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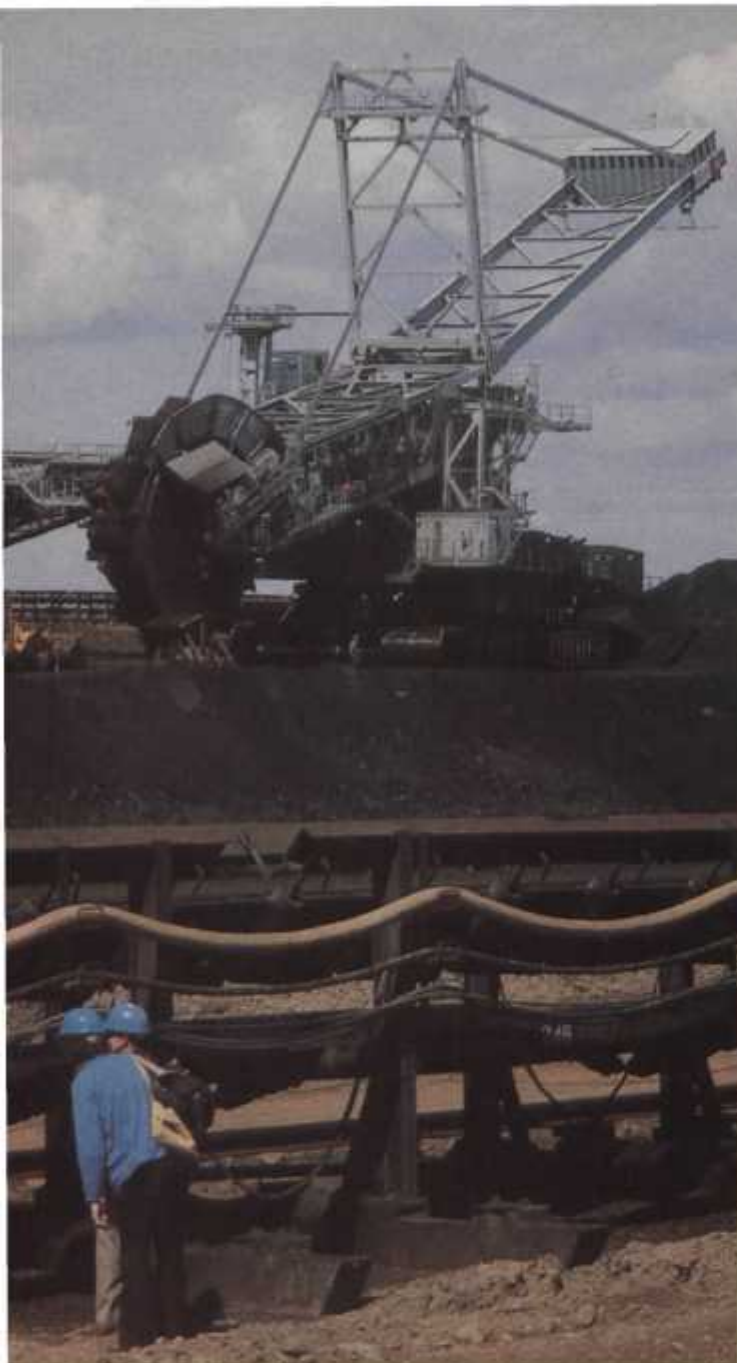


PHOTO: TONY VALUCCI

A 2,500-ton reclaimer dwarfs a front-end loader and the man near it (center). The bucket wheel works the petroleum-rich oil sands in Canada's Athabasca region.

PHOTO: LEE MOORE—UNIVISIT



The nation's refining capacity will have to be expanded substantially before the United States can develop its heavy crude and oil sands resources on a large scale.

Thick, gooey heavy crude from a Husky Canadian field is pumped into a tanker truck for shipment to a refinery where it will be upgraded and processed.



PHOTO: MICHAEL J. PITTWOOD—UNIVISIT

America's continued dependence on foreign crude oil means that the nation's transportation system must contend with sporadic gasoline lines and shortages of jet and diesel fuels. One alternative is development of synthetic fuels.



PHOTO: TONY VALUCCI

Time To Get Moving

U. S. heavy crude and oil sands stay in the ground because government policies favor foreign sources

By Tony Velocci

TRANSPORTATION disruptions. Shortages of goods. Gasoline lines. They seem to have become part of the American way of life.

Look what happened just within the short span of a past month: Motorists' rising tempers kept pace with increasing prices at the pumps. Independent truck drivers went on strike to protest uncertain supplies and rising costs of diesel fuel. And consumers indulged in sporadic panic buying that left some supermarket shelves bare, while resort owners faced a bleak season as vacationers stayed closer to home.

All this travail is largely self-imposed. The economic and social havoc caused by inadequate and expensive energy supplies is only partly the fault of the three price increases decreed by the Organization of Petroleum Exporting Countries. More to blame is the U. S. government's seemingly punitive treatment of alternative fuel resources, especially heavy crude.

Solution in own backyard

And if the United States has propelled itself into an energy crisis of its own making, the nation has one solution in its own backyard.

Enormous deposits of heavy crude and oil sands are found in more than 80 countries, including the United States, whose reserves are estimated at up to 300 billion barrels. Canada has more than two trillion barrels of heavy crude and oil sands in the province of Alberta alone, and Venezuela has an estimated 4.5 trillion barrels.

About ten percent of all petroleum products produced in the world in 1979 will be from heavy crude and oil sands operations in 40 countries. Present production in the United States is about one million barrels a day. Overall imports in the U. S.—light, medium, and heavy grades—average 8.2 million barrels a day, and oil is con-

sumed at an annual rate of about 30 barrels per person.

Compared to conventional crude oil, whose production worldwide is expected to peak in another ten or 12 years, heavy crude is a thick, gooey substance of about the same consistency as molasses on a cold morning. And oil sands, which is so viscous that it is practically a solid, is a mixture of oil, sand, and water.

The density of both makes them difficult to extract, and the impurities increase the cost of refining. Still, both yield the same products as the lighter imported crudes, only in smaller quantities.

Competitive pricing

Until recently, only about ten percent of the heavy crude could be extracted from its natural deposits. Now, advanced technologies have increased that percentage. Getty Oil Co., for instance, recovers up to 70 percent of its heavy crude in its California operations.

Moreover, the OPEC price increases have made the economics of heavy crude competitive. Says John R. Grey, president of Standard Oil of California: "Heavy crude has become extremely attractive, and it should be pursued because the economics of many products are sound at today's import prices."

The average price of OPEC oil will be about \$20 a barrel, which translates into about three cents a gallon more at the gasoline pumps. At that price level, heavy crude, and possibly oil sands, are ready to be tapped on a large scale.

Most stringent

The major stumbling block appears to be the role of government. As Charles DiBona, president of the American Petroleum Institute, puts it: "At the rate the price of OPEC oil has been leapfrogging, I'm more concerned

about impediments from government than I am the economics."

In California, where environmental regulations are the most stringent, deep heavy crude at 7,500 feet or below is produced at about \$10 a barrel. It costs another \$2 to \$5 to upgrade the crude so that it can be refined into gasoline and other products.

Allowing for the maximum cost of production and upgrading, the price per barrel is about \$17, or \$3 less than the new average price for OPEC oil.

If American companies were allowed to sell such alternative fuels for what it costs them to produce, which they aren't, plus earn a reasonable profit, a major obstacle to making the nation self-sufficient in energy use would be eliminated.

For the time being, however, U. S. heavy crude is treated as "old" oil—a classification based on the year when the resource was discovered. Under complex government guidelines, old oil has a ceiling price of \$5 or so per barrel, regardless of what it costs to produce.

Thwarted incentives

Also, federal regulations permit companies to pass on increases in the cost of purchasing crude oil, but not the costs of upgrading and refining all of it.

"Oil companies know they can buy sweet crude from foreign sources, no matter what it costs, because the prices can be passed on to consumers," says Mr. DiBona. "But companies that invest in low-priced heavy crude in this country are barred from passing all of those costs on, even though the total price of the upgraded heavy oil may be no more than the total price of imported crude. You can imagine what that does to incentive."

Local, state, and federal environmental regulations are just as troublesome and may turn out to be the most



Alternative fuels are receiving much attention in Congress. Sen. Henry Jackson (D.-Wash.) has proposed a bill that has broad bipartisan support.

serious roadblock to the rapid production of alternative fuels. One of the biggest obstacles is the Clean Air Act.

Siting of exploratory wells has been hampered, and new refinery construction has been halted or delayed. Since 1970, for example, 13 new refinery projects on the East Coast alone have been aborted. Not one new major refinery has been built in this country in the past 20 years.

Development held back

The nation's development of alternative fuels has also been held back because of other government energy policies such as the entitlements program, established in 1974. Under this program, refiners who process more than the national average of lower-priced crude oil must make monthly cash payments to refiners who depend on higher-priced imported oil.

The object is to minimize acquisition costs of crude oil and provide equitable petroleum product prices throughout the United States. Instead, the system has discouraged investment in new energy sources. The entitlements program is due to end with the decontrol of domestic crude oil prices, but its elimination alone will not spur development of heavy crude and oil sands

resources. Huge sums of capital will be required for development. Decontrol could provide much of it unless Congress adopts a windfall profits tax that undermines the purpose of decontrolling oil.

The tax bill reported out by the House Ways and Means Committee would reduce the companies' share of added revenues from gradual decontrol to about 12 or 13 cents of each incremental dollar, according to Mr. DiBona. "It would nullify most of the positive effects resulting from the President's decontrol program," he says.

Contrast American policies with those of Canada, where oil companies are encouraged to develop energy resources. Complaints persist about the amount of royalties paid to provincial and national governments. But no one denies that energy firms in that resource-rich nation are operating in a healthy business environment.

Athabasca oil sands

Canada's oil sands, located mostly in the Athabasca region of northeastern Alberta, are now being developed commercially. About ten percent of the vast deposits, estimated to contain 20 billion barrels of oil, is close enough to



An oversize dump truck rumbles past enormous mounds of muskeg and topsoil that have been dredged up at Syncrude in Alberta, Canada—site of the world's only commercial oil sands operation. The muskeg will be used to restore the land.

Synspeak . . .

With the recent flurry of congressional activity to speed up development of the nation's alternative energy sources, the term synthetic fuels, or synfuels, is likely to become as popular as energy crisis.

In most references, however, the term is actually a misnomer. The government, energy companies, and news media use synfuels to cover a wide range of gasoline substitutes and oils extracted from coal, tar sands, heavy crude, shale, and farm crops.

Compared to coal that is burned in furnaces and oil that gushes from the ground, these substitutes may be somewhat exotic, but only a small number is actually synthetic, or man-made.

Even energy experts disagree as to what constitutes a true synfuel. Says an Exxon engineer: "The term has really lost its validity when referring to alternate energy sources. It has become merely a catchall phrase."

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Energy companies operating in Canada have had to devise ways of preventing pipelines from freezing in the winter. At this oil sands pilot plant run by Amoco Canada Petroleum Company Ltd., an elaborate array of pipes is covered by a utilidor, a box-shaped unit that keeps fluids flowing year-round.

the surface to permit open-pit mining.

Synchrude, a partnership of four private oil firms, the province of Alberta, and the Canadian government, has invested \$2.6 billion in an oil sands facility that now produces about 50,000 barrels of oil a day. The peak is 130,000 barrels a day.

Everything about the operation is gargantuan. Draglines that dig into the earth are powered by 24 motors and house a three-man crew, a lunch room, and showers. Bulldozers—the 85-ton variety—scurry across the work site and are dwarfed by 2,500-ton reclaimers, each 456 feet long. Buckets pick up 120 tons of oil sand in one scoop. Every 24 hours, each of these behemoths moves enough oil sand to fill the average football stadium.

Reasonable profit

The facility took five years and a peak on-site work force of 8,000 to build. Amortized over the 25-year life of the operation, oil production costs figure out to about \$17 a barrel. Synchrude's users pay the equivalent of the \$20 world price.

Husky Oil, an independent company

with assets of only \$1 billion or so, has helped pioneer the development of heavy oil in Canada over the past 35 years. "We have been able to realize a reasonable profit on a variety of heavy oil properties in the Lloydminster area of Saskatchewan and Alberta and in California," says D. O. Gurel, manager of operations.

Elsewhere in Canada, numerous pilot schemes are under way to explore various production techniques.

Alberta Oil-Sands Research and Technology Authority, which has invested more than \$150 million, is involved in many of the pilot projects.

Esso Resources Canada Ltd., an Exxon subsidiary, is pumping \$4.9 billion into an on-site refinery in Canada's Cold Lake Region. Husky has committed more than \$450 million over the next five years for heavy oil exploration in the Alberta-Saskatchewan border area. And BP Canada, which holds leases on Cold Lake's heavy reserves, is testing oil recovery by a combination of steam injection and combustion. Other petroleum companies that have also made heavy commitments through Canadian sub-

sidiaries are Gulf, Amoco, and Shell. "Ever wonder why that sort of level of activity isn't going on here in the United States?" asks an American oil company executive.

There is more research and development now being conducted in Alberta on the recovery and upgrading of oil sands and heavy crude than anywhere else in the world, according to international sources.

"In view of the current level of activity, government interest, and the potential of the country's heavy crude and tar sands resources, Canada, now a net importer of liquid hydrocarbons, could become energy self-sufficient in 15 years," says Fraser H. Allen, president of Amoco-Canada.

Following Canada

The United States could follow Canada's lead. The long, frustrating gasoline lines, which symbolize America's dependence on the OPEC oil cartel, do not have to be a fixture of the future. The United States could produce much of its own liquid hydrocarbons to meet future domestic energy needs.

Heavy crude deposits could be devel-

oped as a workhorse fuel to supply all of the nation's home heating oil and other heavy grades of petroleum products. This would free up lighter crudes for gasoline production.

However, there has been no systematic exploration for heavy crude and oil sands over the years and, except for the United Nations, hardly anyone collects data on these resources worldwide. Even the American Petroleum Institute, the industry's trade association in Washington, D. C., has very little information.

Vast potential

Says Joseph Barnea, a senior fellow at the United Nations Institute for Training and Research: "Governments both here and abroad seem to be generally unaware of heavy crude's vast potential, the most up-to-date technology, and the economics that exist right now."

Most of the deposits of heavy crude and oil sands that are known today in the United States were discovered accidentally in the search for conventional oil. Result: Huge recoverable deposits sit in the ground, although many wells that could be used to extract heavy crude are in place.

Chemical composition ultimately determines the commercial value of petroleum, whether it's heavy crude, oil sands, or the conventional, light oil which is the easiest to produce and refine.

Heavy oils differ from lighter crudes by the degree of their gravity, which is actually their viscosity. Almost any oil with a gravity of less than 20 degrees is considered heavy crude. And while it is frequently found at much shallower depths than conventional oil, heavy crude is never found with the natural gases which produce the traditional gushers of light oil. Because most heavy crude is too thick to flow, it must undergo special processes before it can be extracted.

Heat extraction

Heat is the best way of extracting large amounts of heavy oil. Variations of steam injection and underground combustion techniques are in use and being improved.

Once the thick substance is extracted, it then must be made chemically acceptable to refineries. It can be mixed with light oil or upgraded by removing impurities. The costs vary according to the makeup of the heavy crude, the depth at which it occurs, its geographic location, and the recovery method.



Amoco Canada and its partners are preheating a huge formation of oil sands about 1,000 feet below ground in preparation for large-scale production. Sixteen wells like this one pump incidental amounts of oil in this phase.

Oil or tar sands, on the other hand, are even more difficult to recover, unless they are within 200 feet of the surface. Then they can be strip-mined, as Syncrude does in the frigid Athabasca region.

Oil sands deeper than that must be processed by injection methods, using steam, hot water and gases, air, or solvents to reduce viscosity.

After the oil or tar sand is brought to the surface, the grains are separated from the oil, which is then upgraded. At Syncrude in Canada, the end product is of a better quality than most conventional oil imported from the Middle East. Reason: Upgrading rearranges the molecules of heavy crude, resulting in a higher hydrogen and lower carbon and sulfur content.

Congress, meanwhile is beginning to put together tangible evidence of its interest in alternate energy sources. The number of bills dealing with alternate and synthetic fuels number in the double digits.

Two proposed measures that have broad bipartisan support stand out. One is the nine-point Energy Supply Act introduced by Sen. Henry Jackson

(D.-Wash.), chairman of the Senate Energy and Natural Resources Committee, and 19 cosponsors. The multibillion-dollar project calls for a new energy partnership between government and industry.

Parts of the legislation propose funding or loan guarantees for various energy projects involving coal gasification, geothermal, solar, oil shale, gasohol, wind, urban waste, and other types of alternate energy sources. The bill is expected to reach the Senate floor next month.

No mention

The other measure, introduced by Rep. William Moorhead (D.-Pa.), is an amendment to the Defense Production Act of 1950. It would empower the President to make advance commitments to buy alternative fuels for national defense and use up to \$3 billion to pay the difference between the contract price and the market price.

(The nation's abundant coal supply will eventually be a prime source of synthetic fuels, and nuclear power has the potential for generating a substantial share of Americans' electricity

needs. Their immediate future is uncertain, however, since both face regulatory and other obstacles.)

Curiously, the Jackson bill makes no mention of either heavy crude or oil sands, and the Moorhead bill avoids reference to specific alternative fuels altogether. A spokesman in Sen. Jackson's office says that although the two resources are not singled out, they have not been ignored; they "may be covered" under one of the bill's provisions.

Incentive to get moving

The Moorhead bill, says cosponsor Rep. Stewart B. McKinney (R-Conn.), "is merely an incentive to get us moving in the development of alternative energy sources, including heavy crude

and oil sands. We don't feel it's appropriate to pick which technology or alternative fuel source is best."

Dr. Barnea at the U. N. says: "My impression is that people in American politics who speak about energy know very little about their own natural resources."

"The best example is the U. S. heavy crude and oil sands deposits. The potential is enormous, but unfortunately this fact goes unrecognized by the people in power."

According to Dr. Barnea, heavy crude is considerably less expensive to produce than such fuels as coal liquefaction and shale oil. But this is just one advantage heavy crude may have over some of the more exotic energy sources, he says.

Billions of Barrels—in the Ground

Geologists know of at least 25 states with large heavy crude or oil sands deposits.

While undeveloped, oil sand deposits exist in 22 states. Utah has several giant deposits. Total resources in California, Kentucky, New Mexico, Texas, and Utah are about 30 billion barrels. Canada has the only commercial oil sands operation in the world.

Heavy crude has been under development for nearly 20 years in the United States. The largest producer is California, where about 500,000 barrels a day are extracted, about half from thermal recovery methods such as steam injection.

Reserves of heavy oil in California alone could total as much as 50 billion barrels. Ultimate recovery potential has increased from about 12 percent before 1960 to more than 50 percent now.

"Much of the technology that is now being used in Canadian heavy oil operations was originally developed in California," says Fred O. Hallmark, a reservoir engineering officer in California's Department of Conservation. "Companies in Canada are advancing much more rapidly because there are so few regulatory and governmental obstacles to work around."

"Until some of the constraints in the United States are eased, there is little chance current production will be increased significantly."

One factor that will influence pro-

duction is that larger amounts of heavy crude from Venezuela and the Middle East are entering the world market. As the potential of this largely untapped resource becomes apparent, U. S. companies will want to build heavy crude processing facilities.

"We know of projects that are being planned now," says Axel Johnson, vice president of Stone & Webster Engineering Corp., New York. "We look for a sharp increase in such projects in the future."

E. Anthony Copp, vice president for energy at Salomon Bros., investment bankers, estimates that within three years medium and heavy crude from Saudi Arabia will go up to 4.9 million barrels a day, compared to about 2.7 million at present. U. S. refiners are now required to accept 20 to 30 percent of the oil they import in heavy crude under new contracts.

Says Mr. Copp: "The message on the wall is that more heavy and medium crude will dominate the market."

In the short run, the outlook is dim for any significant increases in the production of conventional oil, according to Charles DiBona, president of the American Petroleum Institute. "Long-term, however, 15 to 20 years away, the possibilities are very good for obtaining a substantial increase in fuels supplied from heavy oils."

Predicts Mr. DiBona: "By the turn of the century, the sources of our crude oil supply will be totally different from what we have today."

"The infrastructure for oil production, transportation, processing, and distribution already exists in the vast network of pipelines, refineries, and other elements."

"It is time to lay the necessary groundwork for increased production of heavy crude and tar sands," says Dr. R. H. Hertzberg, director of fossil fuel extraction, U. S. Department of Energy. "The technology is at hand; it's now a matter of getting on with it."

One to get there

As with most alternative fuels, energy must be expended to produce heavy crude or oil sands and prepare them for refining. At Syncrude, for instance, it takes one barrel equivalent of British thermal units to produce three barrels of upgraded crude. As the value of a barrel of oil increases, therefore, so does the price of producing alternative fuels.

Two factors impede the large-scale development of heavy crude and oil sands in the United States: Government policy, which will be crucial, and additional large discoveries of conventional oil.

"The debate over profits obscures the main issue, which is how to minimize our reliance on foreign oil supplies," says an energy analyst at Bankers Trust Co. "What is needed is less debate on how to get petroleum profits down and more effort to get domestic production up."

Industry sources say that new and large finds of conventional oil are possible, but unlikely. There are no Alaska or North Sea deposits on the horizon, and countries that have already struck it big—such as Mexico—are keeping a tight lid on their resources.

The world's energy needs may slow down during the next decade and beyond, but they certainly aren't going to disappear. And until the United States develops its own energy resources, the oil cartel, which shows no signs of loosening its economic stranglehold on the rest of the world, will be only too glad to supply crude to this country—at any price it wishes.

Even if the United States adopted a crash program to develop its heavy oil resources, it would be eight to ten years before the nation could begin using significant quantities of the end product. Which is all the more reason to get started now.



To order reprints of this article, see page 78.

Crisis Times and the Lines of '79

ON AN ALL-TALK radio program broadcast from Boston, a woman from Toledo, Ohio, complained, tongue in cheek, that she felt disadvantaged—there was plenty of gasoline in Toledo, and she had yet to experience the joys of waiting in line.

For motorists in Washington, Boston, and New York, however, there was plenty of waiting—gasoline shortages that had started in California jumped to the East Coast, resulting in higher prices at the pumps, longer lines on the weekends, and a crisis atmosphere that had governments and the public thinking about rationing.

Cab drivers and small businesses with delivery services adjusted their workdays to set aside an inordinate amount of nonproductive time to get fuel.

In Washington, D.C., Auth Bros., one of the area's largest purveyors of food to hotels, restaurants, and institutions, reported a few shortages lasting 24 to 48 hours as trucks were delayed.

"But we don't put all our eggs in one basket," says spokesman Michael A. Norelli. "If one supplier doesn't come through, we have others. We're getting the merchandise we need."

More bus riders

Besides angering motorists—numerous brawls and several deaths were reported—the gasoline drought had other side effects.

Ridership on public transportation systems boomed, but buses, planes, and trains managed to cope.

Intercity buses "are not having a problem and do not anticipate one," says Stephen M. Kirchner, director of marketing and membership programs for the American Bus Association. Asked about the fuel outlook for the rest of 1979, Mr. Kirchner replied: "All supplies will get better."

J. Kevin Murphy, president of Trailways, Inc., says: "Bus ridership goes up in almost direct proportion to rising gasoline costs and declining availability." Business measured across the 43

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Rising prices and shortages of diesel fuel for trucks like these over-the-road rigs, which get as little as four to five miles to the gallon, were the major cause of the independent truckers' strike, which disrupted shipping schedules nationwide.

states served by Trailways was up seven to eight percent over last year.

The one or two spot shortages—bulk fuel tanks down to one-quarter or one-half full—were ended by hauling fuel from one site to another, he says. "We've had no problems with canceling runs or having buses run out of fuel," says Mr. Murphy.

Greyhound Lines, Inc., whose 4,500 buses use 70 million gallons of diesel fuel annually, has no supply problems. Lee Whitehead, public relations director, says:

"We're not swimming in diesel fuel, but the supply is adequate. We have a long-term relationship with our suppliers, and we buy in bulk."

More jet fuel

Says William E. Jackman of the Air Transport Association: "Decontrolling the price of jet fuel has created more, so we should get about as much as we did last year, perhaps 85 to 90 percent of what we need." The difference is made up on the spot fuel market where jet fuel sells for \$1 a gallon,

more than twice the price of fuel bought under contract.

As a result of higher fuel costs, the association estimates that fares will rise ten percent during the second half of 1979.

One worry for the future: Jet fuel is a middle distillate just like home heating oil, so airlines and homes may be competitors when winter comes. "And there's no question about homes being the number one priority," says Mr. Jackman.

Trains doing well

Train traffic is doing marvelously well, according to Amtrak spokesman Joseph Vranich. "We've got advance bookings like we've never had in our history, including during the 1974 Arab embargo." Costs, including fuel prices, are up, but so are revenues. Fuel availability poses a constant headache, says Mr. Vranich, but the trains are still running and setting records for ridership.

Dianne Liebman of the Association of American Railroads, which has 160



A sign of the times: Individuals and small businesses scrambled to get gasoline, wasting time and fuel waiting in gas lines when the pumps were open.

members including nearly all of the 41 largest railroads, says that many railroad operators are "scurrying around for fuel and drawing on stockpiles." Although the amount varies, normal supplies are enough to operate for about three weeks, she says. Some railroads were down to a week's supply, but spot market fuel was available, she adds.

However, at least one railroad, the Milwaukee Road, has cut some of its freight operations, blaming fuel shortages. President Worthington L. Smith says: "We have no guarantee that the shortage will ease. Indeed, all signs seem to point to an even tighter fuel supply in the months ahead."

Part of the problem is internal; the Milwaukee Road has few tank cars, and its ability to equalize fuel supplies among its 64 locations in 16 states is limited.

Mass transit straining

Public transit—subways, commuter rail, and bus—is booming. Barry Wiegand, a spokesman for the American Public Transit Association, says the latest figures show ridership up 7.3 percent over a year ago.

Fifty-two of the 130 systems reporting to APTA are up more than ten percent, Mr. Wiegand says. "We're accommodating an extraordinary demand," he says, noting that ridership is up seven million in Los Angeles, four million in New York City, and three million in Chicago.

Some systems are straining, Mr. Wiegand says, but nationally the mass transit systems have an excess capacity of five to eight percent. Transit companies are ordering new equipment in record quantities, although delivery

dates are running at a year for buses and more than that for rail cars.

Increased ridership during the oil embargo of 1973-74 reversed a 28-year decline in transit patronage, says Mr. Wiegand.

Just last month, he adds, public transit was riding a crest of 23 months of ridership increases.

Problems for truckers

The problems of the independent truck drivers, who went on strike, were well publicized. Regulated trucking companies benefited from allocation changes designed to help the independent truckers.

Fuel was a problem, says Regina Selva, a transportation analyst for the American Trucking Associations, Inc., of Washington, D.C., but there were no business shutdowns and no personnel layoffs.

She says that many companies have their own bulk supplies. Whenever they were short on fuel, they could buy from the spot market, although that was more expensive. Prices for diesel fuel on the retail market rose from 63.5 cents a gallon on Jan. 1 to 87.6 cents a gallon in early July, she says.

Like the airlines, truckers may have problems this winter—diesel fuel competes with home heating oil for refining capacity, and the stockpiles of these middle distillates are not as great as they should be. "If we have a bad winter," says Ms. Selva, "we'll be hurting."

Pessimistic about fuel

Robert Keeney, director of transportation for the United Fresh Fruit and Vegetable Association in Alexandria, Va., reports scattered problems in shipping fruit and produce. "But where there has been a problem," Mr. Keeney says, "it has been severe." He pointed to shipping disruptions in Washington state (cherries), the Carolinas (peaches), Florida and Texas (melons), and California (lettuce and other produce).

For the rest of 1979, Mr. Keeney is optimistic: "I don't anticipate any problems." However, Wilson McGee, general manager of United Growers and Shippers in Florida, is pessimistic, particularly over the uncertainty of fuel supplies.

Fortunately for his 500 members, the fuel disruptions and independent truckers' strike came at a slack time. "If this had happened a couple of months earlier, during the fresh fruit season, we would have been in serious

trouble," Mr. McGee says. As far as he's concerned, the nation has less than two months to get the fuel situation back on track. "We begin moving fruit in October," he says, "and most of it moves by truck."

In Champaign, Ill., Robert Holbert, an analyst for ContiCommodity Services, Inc., says that the short duration of the truckers' strike averted disaster for the beef industry. There was no serious disruption in the movement of beef, he says.

Automakers, who need a constant influx of parts to make cars, reported no difficulties in getting parts. Al Rothenberg, spokesman for the Motor Vehicle Manufacturers Association in Detroit, says the only problem is selling the cars once they're made, "especially the big cars."

More gasohol

Rep. Bud Shuster (R-Pa.), chairman of the National Transportation Policy Study Commission, which recently issued the results of a two-year study of transportation, says federal regulations need to be changed to allow, as one example, greater use of gasohol, a blend (usually 90-10) of gasoline and alcohol.

He favors streamlining environmental restrictions to promote more use of coal and opposes the President's order setting thermostats at 78 degrees in summer and 65 degrees in winter. Such controls are ridiculous, he says. Of the summer of '79, Mr. Shuster says: "We're paying the price now for several years of energy mismanagement."

The gasoline lines were mainly confined to the big cities, says J. Kay Aldous, vice president for public and government policy at the American Automobile Association. "Across the country, there are still people who don't know what a gas line is."

He believes there is no question that government regulations contributed to the long lines. "If the market were operating on its own," he says, "you wouldn't find such extremes."

W. Risque Harper, executive director of the National Congress of Petroleum Retailers, blames the shortages on the Energy Department's allocation program. Last February, the base period was changed from 1972 to 1978. That favors oil company stations, while hurting "neighborhood service station dealers," he says. "Also, the allocation system does not take into account regional differences in supply and demand." □

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Business Life-Style



PHOTO: SLIM AARONS—PHOTO RESEARCHERS, INC.

The more affluent collectors roam the world in quest of rare antiquities. Actress Merle Oberon enhances her Acapulco home with exquisite Chinese porcelain.

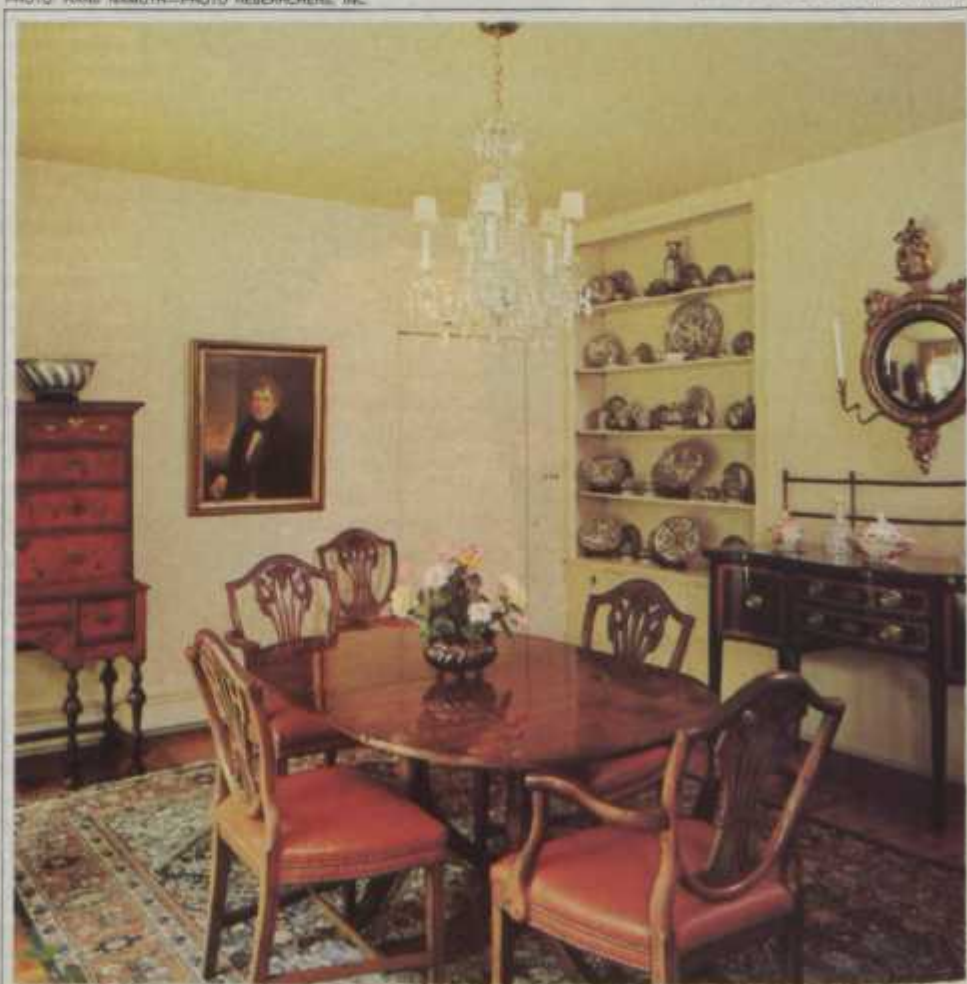
Even a gasoline shortage will hardly deter the determined antique hunter from his or her rounds, which invariably include quaint country stores as well as auctions and city showrooms. Every collector has a favorite source.



PHOTO: A. PIERCE BOUNCE—UNIPHOTO



Light through colored bottles gives aesthetic pleasure.



The ultimate goal of antique furniture collectors is a complete room restoration. This elegant colonial-period dining room graces a Long Island home.



ANTIQUES

All Things Past and Beautiful

By John Costello



UROPE is a "fer piece" from T. C. Morrow's old hometown of Mount Enterprise (population, 425) in east Texas. But he enjoys touring the Continent "to see the places you dream of when you're a child."

Mr. Morrow likes London best. The self-made Texas oilman says with a grin: "Even though they don't speak English there, they come closer to it than other Europeans."

He and his wife, Phyllis, make three to six trips to Europe a year, not just to sightsee, but to shop.

"We fell in love with old French furniture," Mr. Morrow says. "The great beauty of it attracted us. This is furniture that will never be built again."

"Ormolu, marquetry, and parquetry that you cannot believe. Some of the fine pieces might take three to ten years to finish. You'll never again see any artisan spend the time needed to make things like these. To the best of my knowledge, the skills required no longer exist."

For the president and sole proprietor of T. C. Morrow Oil Co. of Houston, Texas, collecting antiques is very much like a sport he also enjoys—quail hunting.

"It's so like going hunting," he says. "You just look forward to the next trip."

But in Europe, instead of bagging a tasty, eight-ounce feathered tidbit, he and his wife are out for bigger game. Like the prize acquisition that is now on display at the Grand Palais museum in Paris. The French government borrowed it from the obliging Texan.

"It's a bookcase that was constructed for the Paris Exposition of 1867," he says. "It's one of a kind. Back in those days, they built special pieces to show at exhibitions. If your piece won the exhibition, your reputation was made. You became a famous furniture maker."

When a private French owner put it on sale, the Louvre wanted to buy it, but didn't have the francs.

Mr. Morrow did.

France's loss was Houston's gain.

One of these days, the exquisite ebony bookcase will be back in the Morrow home in Houston, in good company with other fine furniture, porcelain, and silver.

"We intend to leave the house and the antiques to the city for a museum," says Mr. Morrow.

What is an antique? Here's how the Tariff Act of 1930 defines it:

"Works of art (except rugs and carpets made after the year 1700), collections in illustration of the progress of the arts, works in bronze, marble, terra cotta, parian, pottery, or porcelain, artistic antiquities, and objects of ornamental character or educational value which shall have been produced prior to the year 1830."

Why 1830? That date wasn't just picked out of a hat by a bemused Congress.



HE 1830s were sort of a watershed, experts point out. About that time, mass-produced began to replace hand-made—in glass, furniture, and many other household articles.

Then again, anything made before 1830 would be at least a century old when the Tariff Act of 1930 was drafted. But even that yardstick is a narrow, legalistic definition to most collectors.

"More and more experts," says Marguerite Ashworth Brunner in her book, *Antiques for Amateurs on a Shoestring Budget*, "are beginning to agree that an antique is merely something beautiful from the past. Something that has melted with age and is pleasing to the beholder."

That, of course, covers the waterfront—from Japanese netsuke to Indian baskets, from carnival glass to Waterford crystal—from prehistoric times to pre-New Deal.

Broadly defined, antiques are big business.

"In a year, about \$2 billion worth are bought and sold," says Richard H. Rush, a recognized authority.

"That includes sales of auction houses and retail dealers. There may be some double counting, because retail dealers



The tailgate of a station wagon often holds surprising treasures for antiquers.

buy from auction houses. But they also import a lot. I think that estimate," he adds, "is probably conservative."

It is if the Gray Letter, published by *Antique Monthly*, is on target. The Gray Letter says that turnover—a term that includes sales by auction houses, at major shows and exhibitions, by art dealers, and private sales and resales—was \$5 billion in 1978, a 20 percent increase over 1977.

WHAT ARE the hazards of collecting? Jules Fleury-Husson, a 19th-century French writer, gave this tongue-in-cheek description of one risk—obsession.

Here's what it takes, he said, to be a perfect collector: "All irrelevant thought has to be sacrificed to the collection. Do not occupy yourself with politics; never go to the theater; forbid yourself to open a book; scorn the pleasures of family; always have ready money in your pocket; arrive each day at the auction rooms at one o'clock, leave at six, and return for the evening sales.

"With this you will have a full life."

Nor is that the only pitfall. There's a story that illustrates another, especially for those into antiques or old objets

d'art: One new, enthusiastic collector called a friend to boast of his great acquisition.

"I came across something marvelous," he told his friend. "An archaeologist I know sent me the very cup from which Socrates drank the hemlock."

"Are you sure it's authentic?" the friend asked.

"Authentic!" the collector replied. "Why, when they dug the cup up, it was clearly marked 400 B.C."

"That's a wonderful story," Elinor Gordon says. "And it makes a good point. Many antiques command such high prices that copies are always coming out."

Elinor Gordon is a well-known authority on Chinese export porcelain. She's the proprietor of a gallery in Villanova, Pa., that specializes in that kind of ceramic ware.

The Gordons—she and her husband—own an outstanding personal collection of the porcelain, which was made to order.

"This porcelain was made in Kiangsi province, about 400 miles northwest of Canton," she says. "And it began to reach the West in quantity after the Portuguese set up a trading post at Macao. That was about 1536."

The Gordons own a small cup and

saucer from a service made for Hernando Cortez, conqueror of Mexico, and bearing his coat of arms. But they take more pride and pleasure in the pieces they acquired from a dinner service made by the Kiangsi craftsmen for George Washington. It's decorated with the insignia of the Society of the Cincinnati.

Collecting can be a lucrative hobby. "It has been for me," says Leo M. Bernstein.

"When I started collecting in the 1940s," he adds, "you could buy antiques for one 25th of the price they command today. Otherwise, I couldn't have afforded them."

Not then, maybe. But he can now, after a long, successful career in real estate and banking. He is vice chairman of the board of National Savings and Trust Co. in Washington, D.C.

Still, it wasn't capital appreciation that enamored him of antiques, but a reverence for the past. "My family came here in 1882," says Mr. Bernstein, a native-born Washingtonian.

In the argot of the nation's capital—a revolving-door area heavily populated by transients—that makes him a cave dweller.

"This city," he says, "has always fascinated me, especially its early history."



IS PRIZED acquisitions from a long career of collecting include an 18th-century Virginia inn, a writing desk that once stood in President James Monroe's study, and a ring with a snippet of reddish hair from the head of the Father of our Country.

What has collecting meant most to him? A sense of continuity and a link with the past.

"When I actually touched a strand of Washington's hair," he says, "I felt as if I were a part of him—and his time."

Whatever goes up generally comes down. Antiques are no exception to that hoary law of gravity and economics. Eli B. Springs, a famous U.S. collector in the 1920s and 1930s, spent almost \$700,000—when the dollar was worth a dollar—to amass a storied collection of art and antiques.

After he died, the collection was sold in 1934 during the Great Depression. The art treasures, antiques, silver, porcelain, ivory, and other prized possessions brought about a third of what he paid for them.

This past June, Saudi Arabian Akran Ojeh's dazzling collection went on the block at Sotheby Parke Bernet's

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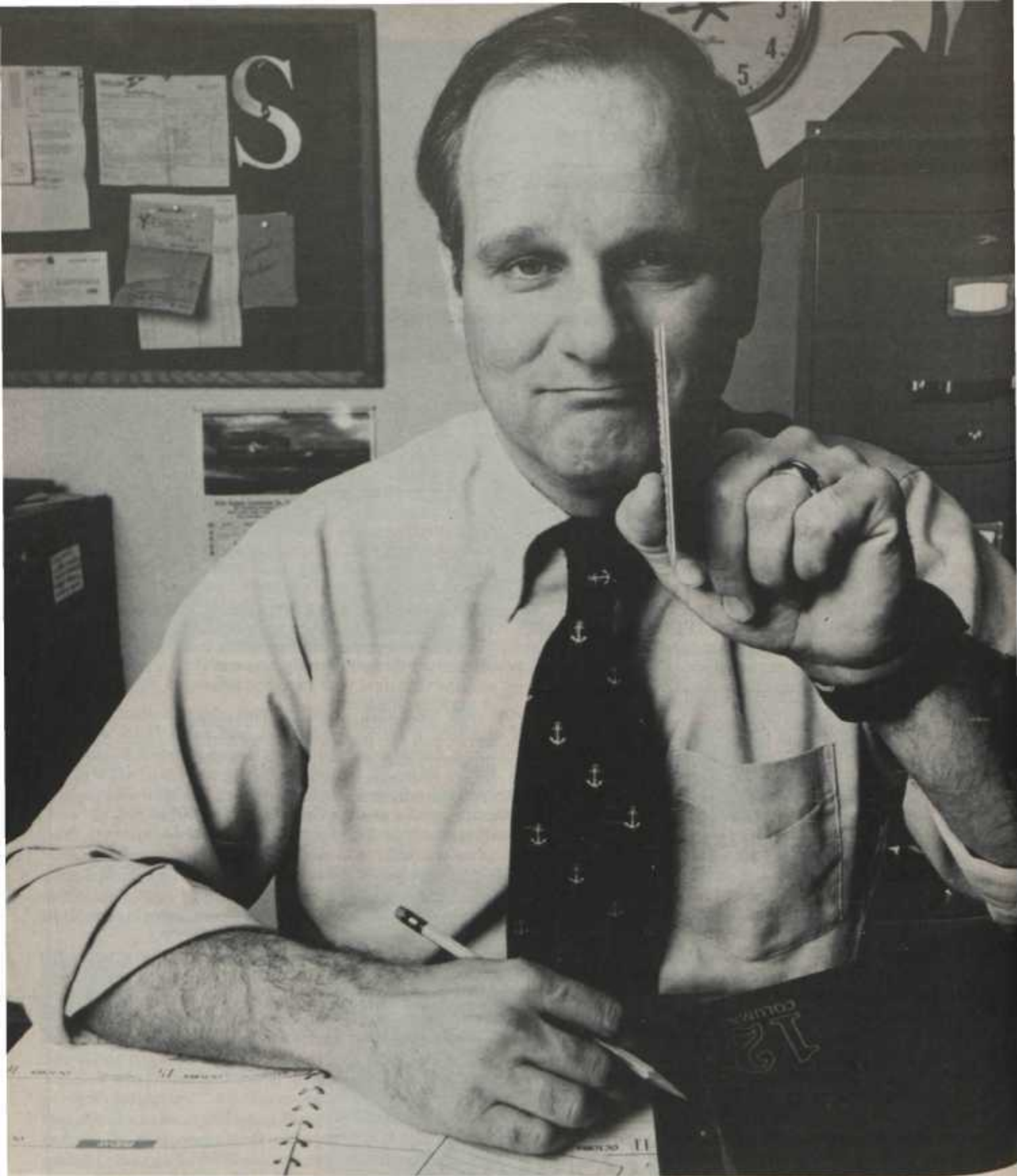
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Buyer and seller alike felt the growing

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And with every order came a flurry of paperwork, often repetitive, always time-consuming and error-prone, too often snarled in mail hang-ups.

What GESCO needed was a way to streamline the whole process, build orders, and reduce paperwork for itself and its customers.

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auction house in Monaco. One piece, a Louis XV encoignure, a corner cupboard with ornate ormolu decoration, sold for \$1.7 million.

The entire collection was knocked down at \$12.7 million.



LEO BERNSTEIN bought an inn; Virginia Knauer helped restore one.

She and her husband, both history buffs, began collecting antiques almost from the day they said: "I do." When she was a member of Philadelphia's city council in the 1970s, the Knauers took on the job of restoring an 18th-century inn and tavern.

"It was a civic obligation, but fun," says the native Philadelphian, who was President Gerald Ford's special assistant for consumer affairs. She's now head of her own consulting firm in Washington, D. C.

Buying antiques to furnish the tavern brought her the kind of challenge many collectors relish. Namely, butting heads with a rival bidder and besting him.

"It was over a pair of English delftware plates," she says with a laugh.

"They were attributed to a well-known decorator, John Niglett. My husband and I were bidding against this wealthy eastern collector. He brought a big museum curator with him as an adviser.

"We needed a Niglett plate for our restoration project. When the bidding was over, I was sure we had won.

"But when we went to claim our Niglett, there was our rival. He claimed he had made the winning bid. So they had another auction, right on the spot, just between us.

"The bids went up and up—to maybe \$250. Then I stopped and began to laugh.

"Why?" my husband asked.

"Well," I said, "it annoyed me that he would be so ungallant as to try and take that plate from me. So I pushed him way up."

"What he didn't know," says Mrs. Knauer, "was that I had already found an identical Niglett plate in a stack of miscellaneous china I had bought earlier for \$20."

Today, many collectors are like Stanley P. Sax, president of Stan Sax Corp., Birmingham, Mich., and a member of the advisory Fine Arts Committee of the State Department. They have a practical as well as aesthetic purpose in collecting antiques. They look for things they like to live with. They don't stick to one period or style.

The Fine Art of Collecting

Whether you collect fine French 17th century furniture, southern coin silver, cigar store Indians, Chinese export porcelain, Washington memorabilia, or other Americana, success depends on know-how, energy, and enthusiasm. Know-how, in fact, may be a bigger asset than a fat wallet.

Here are some rules of thumb adapted from Richard H. Rush's book, *Investments You Can Live With and Enjoy*:

- Take a self-taught course in your chosen collectible. Both books and museums—where you can see what fine quality pieces look like—are good sources of information.

- Visit dealers. They, too, are likely to have examples of what you are collecting—of varying age, condition, and quality. You can inspect these pieces closely at a dealer's shop or gallery. A reputable—and friendly—dealer may also tell you how to judge age, authenticity, and condition.

- Attend auctions. Get price lists and catalogs. You'll get a better idea of market value as well as other useful information from catalogs and auction house officials.

- Set up a buying budget. Decide in advance how much you can afford to spend weekly, monthly, or yearly.

- Limit spending on any single purchase. That will keep you from blowing a big chunk of your budget on any one item. It will also hold down your loss on an occasional mistake.

- Buy quality. In the long run, quality pieces hold up best in value. They are also more attractive and pleasing, at least to the trained eye. But don't assume that the most expensive item is the best buy. As long as they're quality, less costly pieces may rise in value more rapidly than those with fancier price tags. And sometimes quality may simply be overpriced.

- Find organizations that can help you. Fellow collectors often band together in clubs or associations. Often, you can learn a lot from others bitten by the same bug.

- Document what you buy. Keep a record of where and when you bought it, from whom, and for how much. Also, try to run down its history or background. Your records are necessary for tax purposes and will add to its value on resale.

As long as things mix well, they don't have to match.

Mr. Sax's latest acquisition is a Hupa Indian basket with a tan, brown, and black quail-tail design. It's a wedding anniversary present to his wife.

"It's very handsome," he says, "and it will look great in our bedroom."

What will they use it for?

"Nothing," he says, "except the sheer joy of looking at it."



BEAUTY HAS its charms for Emyl Jenkins, too. She's head of her own appraisal firm in Raleigh, N. C.

"My real love," she says, "is silver, especially southern coin silver. My father came from Massachusetts, and the family had a lot of old coin silver. It was made mostly before 1860, about the time when sterling became the standard.

"Sterling is finer than coin. It's 925 parts silver out of a thousand. Coin silver is only 900.

"But I grew up liking this old silver. I thought it was pretty, and it felt good when I used it. Then I got interested in its history and the craftsmen who

made it. The fact is that it isn't being made anymore."

Since coin silver is often thinner than sterling, has a different patina, and isn't marked, it often goes unrecognized.

"It gets sent down to the church bazaar or local thrift shop or thrown away because it's thought to be worthless," says Ms. Jenkins. "If you can recognize it and look hard for it, you can make some great discoveries."

Like the one she made in a store near Durham, N. C.

"This coin silver spoon was just thrown in a shoebox with miscellaneous kitchen junk—can openers, basting brushes, bent forks, and the kind of steak knives you used to get from a filling station for buying ten gallons of gasoline.

"You could have any item for ten cents. I picked the spoon up, looked on the back and saw the name: Brown and Anderson. My heart almost stopped. They were fine silversmiths in the 1850s in Wilmington, N. C.

"So I bought this beautiful antique spoon for a dime. It was worth \$75 to \$150."

Rising Gasoline Prices Fuel Diesel Engine Sales

By Raymond S. Reardon, Jr.

IN THE CAMPAIGN to conserve energy, the diesel engine industry is gearing up to challenge the ubiquitous gasoline-powered engine.

U.S. manufacturers last year produced about 700,000 diesel engines for domestic and export markets, and annual sales now exceed \$5 billion. Over the next decade, diesel engine sales will increase 12 to 15 percent annually, compared with a 4.7 percent annual growth rate in the period 1967-77. Imports, which last year totaled about 250,000, are expected to increase 15 percent annually over the next few years.

However, the United States and Canada use only 12 to 15 percent of all diesel engines produced in the free world. And although U.S. manufacturers will turn out more than a million diesels by 1981, production still lags far behind that of Japan and Western Europe, where it is expected that more than 5.4 million diesels will be produced during 1980.

Little maintenance

The chief incentive behind increased diesel use is operating economy. Diesels use fuel more efficiently than gasoline engines, require little maintenance, and last longer. Because of these advantages, diesel engines now power many heavy-duty industrial and automotive products such as construction equipment, farm tractors, over-the-road trucks, locomotives, ships, oil and gas drilling rigs, commercial boats, and generators.

The fastest growing diesel markets over the next ten years will be in replacing gasoline engines in cars, agricultural and construction equipment, and mid-size trucks.

Such uses of diesels are relatively

new in America, but fairly common throughout the rest of the world. In Western Europe, for example, close to half of truck production is diesel. This compares to 6.6 percent of American truck production in 1978.

The diesel's advantages stem from its combustion process. In a diesel, combustion is triggered by the heat of highly compressed air rather than by electric spark as in a gasoline engine. The fuel-air mixture in a diesel is leaner, and combustion occurs at a higher temperature. As a result, the diesel gets better fuel economy.

How much a diesel improves fuel economy varies with vehicle and application. Improvement ranges from 25 percent in cars to nearly 100 percent in certain trucks.

Volkswagen's diesel Rabbit, which was tested by the Environmental Protection Agency last year, posted a combined highway-city performance rating of 46 mpg, compared to 31 mpg for the gasoline Rabbit.

Because a diesel has no carburetor or electrical ignition system, tune-ups and related maintenance are eliminated. The diesel is also stronger structur-



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MMNB-18

MR. REARDON is president of IVECO Trucks of North America, Inc., based in Calais, Pa. *Blue Bell, Pa.*



Technicians on a European assembly line build diesel engines. In 1978, the United States imported 250,000 diesels, an amount expected to increase 15 percent a year for several years, and produced 700,000 for both domestic use and export.



Diesel engines like the one in this GM truck are expected to help U. S. motor vehicle manufacturers reach the required 27.5 miles per gallon fleet average by 1985. GM estimates that 15 percent of its cars could be diesel by 1985.

ally because it must withstand high compression ratios.

Another factor that should accelerate the conversion to diesel power, at least in automobiles, is government regulation. The National Highway Traffic Safety Administration has ruled that new car fleets must average 27.5 mpg by 1985.

Diesels are expected to help manufacturers reach that goal. General Motors, for example, estimates that as much as 15 percent of its car production could be diesel by 1985.

While no such regulations govern the trucking industry, simple economics is expected to increase diesel use—particularly in trucks used primarily for pickup and delivery.

In 1975, diesels comprised only 3.2 percent of Class 6 (19,501 lb to 26,000 lb gross vehicle weight) and 43.5 percent of Class 7 (26,001 lb to 33,000 lb GVW) domestic factory sales. For the first quarter of 1979 these figures jumped to 10.5 percent and 55.5 percent respectively.

This trend is likely to continue. A draft report, prepared by a task force of federal agencies including the departments of Energy and Transportation, predicts that virtually all Class 6 and 7 trucks registered in 1990 will be diesel-powered.

Several European automotive manufacturers with much experience in diesel technology are already tapping the American market. In addition to the Rabbit, Volkswagen now offers a diesel in the Dasher and will introduce a diesel Audi in 1980.

Mercedes and Peugeot have had diesels for several years. And Volvo has announced plans to sell diesels in the United States.

Marketing agreements

At the same time, Volvo, Mercedes and, more recently, IVECO (a joint Fiat-Klockner-Humboldt-Deutz venture) with its Magirus trucks expect to expand their share of the mid-size diesel truck market. They will be joined by Renault, which recently concluded a marketing agreement with Mack Trucks, Inc.

Among domestic manufacturers, General Motors offers a diesel option in the Oldsmobile 88, 98, Cutlass, and Toronado and in the Cadillac Seville and Eldorado. GM is also considering diesels for its Pontiac and Buick lines in the 1980s.

Diesels are coming on strong in pickup trucks—the fastest growing segment of the automotive market. International Harvester was the first to introduce diesel engines—in its International Scout. GMC and Chevrolet also have diesel options in their lines.

Altogether, General Motors plans to build 185,000 diesel engines in 1979 for its cars and light trucks, compared with 68,000 diesels built in 1978.

Maintenance savings

The initial cost of the diesel engine has tended to limit enthusiasm among car buyers. The diesel Oldsmobile 88, for example, costs \$800 more than its gasoline counterpart. The diesel option in the Volkswagen Rabbit adds \$300 to its price tag.

Higher initial costs, however, are often offset by fuel and maintenance savings—especially in the trucking industry. IVECO has prepared a study that compares operating costs of comparably equipped gasoline and diesel vehicles.

The diesel truck in the study not only pays back an initial \$4,000 premium, but saves an additional \$18,000 over five years, primarily in fuel and maintenance.

As fuel prices and operating costs continue to rise, more fleet owners and even consumers will be looking at the diesel engine's costs in evaluating new vehicle purchases. □

SBA Winner Prospers From Preventing Pollution

THE SECRET of success for a small business is an aggressive marketing program, says Gary McDaniel, honored by President Carter and the Small Business Administration as National Small Business Person of 1979.

"So many small businesses open their doors and wait for customers to come," observes Mr. McDaniel, the president of MAC Equipment, Inc., of Sabetha, Kans. "It doesn't happen that way."

Mr. McDaniel lives in a small farming community 60 miles from Topeka. Ten years ago he quit his job as chief engineer of a processing equipment manufacturer, rented a Quonset hut, gathered two employees—one was his wife, Virginia—and founded his company.

He had \$23,000 and was backed by an SBA guaranteed loan for an additional \$25,000 that has since been repaid.

Initially, MAC Equipment built dif-

ferent types of airlifts and filters for food processing equipment. Later, the company designed a dust filter for hay processing plants.

After the Clean Air Act was enacted in 1970, major industries began looking for ways to limit dust pollution. MAC's bag filters were one answer, and the company began to fabricate dust control equipment almost full-time.

Sales shot up from \$42,000 in 1969 to \$4.06 million last year. Profits are healthy. But, says Mr. McDaniel firmly, a "company is only as strong as its employees. Dedicated employees—all 55 of them—made us a success."

The most difficult hurdle, he recalls, was obtaining adequate operating capital. For several years, Mr. McDaniel depended on the local Farmers State Bank of Sabetha, but it didn't supply the amount of money MAC needed.

Mr. McDaniel found a bigger bank and convinced his local banker to ride along to Kansas City and vouch for MAC's success.

The big-city banker offered a loan, but on the ride back to Sabetha, the local man reconsidered. "They aren't doing anything we can't do," he told Mr. McDaniel and subsequently increased his financing.

Mr. McDaniel enjoyed his visit to Washington, his VIP tour of the White House, and his talk with Mr. Carter, who told him: "I know from firsthand experience what quality of peanuts goes into peanut butter. It took 12 years of hearings and 100,000 pages of testimony for the Food and Drug Administration to decide."

Mr. McDaniel's sentiments are similar. "Not many people go to Washington and come back a winner," he remarked. □



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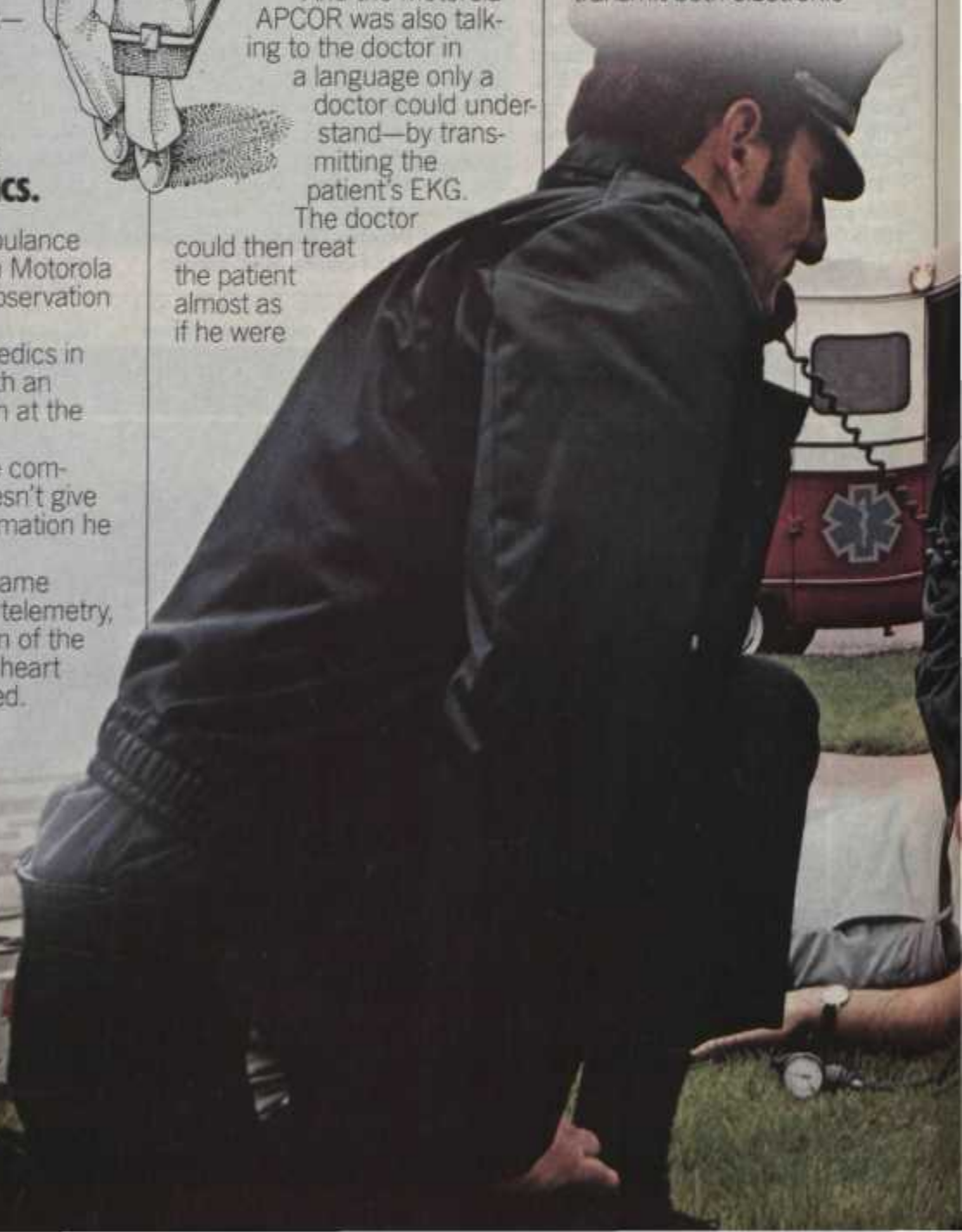
The doctor could then treat the patient almost as if he were

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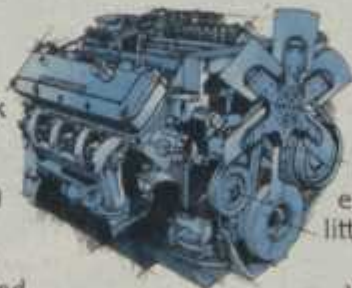


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THE SCENE is Memorial Field in Hanover, N. H. It is 1953. Thousands of Dartmouth College fans erupt into cheers as wide receiver David McLaughlin makes his 41st pass reception of the season, setting his third Dartmouth gridiron record and finishing his senior year as the nation's fifth leading pass receiver.

In his first year of graduate school, he is drafted by the Philadelphia Eagles but passes up the challenge to play professional football.

"My dad advised me that I could wear my Phi Beta Kappa key from my chinstrap, but that wouldn't be a very good place for it," he recalls. "I got the message."

Mr. McLaughlin went on to earn his master's degree in business administration from Dartmouth's Tuck School, but his earlier athletic days—he also lettered in track and basketball—left lasting impressions that helped prepare him for a successful business career.

"Team sports sharpened my competitive instinct, taught me to accept defeats, and helped me to understand that because you must rely on other people, you had better associate yourself with the strongest team possible," he says.

Outdoor equipment

Mr. McLaughlin's six-foot, four-inch frame is trimmer today than when he was in college, but he has lost little of his competitive spirit. Since 1973, he has been chairman and chief executive officer of the Toro Co., a manufacturer and marketer of outdoor maintenance equipment headquartered in Minneapolis, Minn.

When Mr. McLaughlin joined Toro in 1970 as its president at the age of

39, the firm was known for its lawn-mowers. Sales were around \$57 million annually. During the past decade, however, Toro's image and marketing have changed dramatically.

This year, the company's sales will top \$350 million. While Toro still produces quality lawn mowers—the kind you walk behind and the kind you ride on—the company also makes snowthrowers, which constitute nearly 60 percent of the market. Traditionally, Toro has led the industry worldwide in producing automatic irrigation systems for golf courses. Market share is around 50 percent. About one quarter of the yard trimmers now in use carries the Toro brand.

Last year was particularly good for Toro. Sales increased 41 percent, earnings nearly doubled, and the company applied for a listing on the New York Stock Exchange.

Career playbook

Mr. McLaughlin had pretty well developed his career playbook while he was still in college. Following two years as an Air Force pilot, he joined Champion Papers, Inc., as executive assistant to the vice president of operations.

He preferred to work for a smaller outfit because he wanted as much experience as possible. "I felt this would enable me to move into general management and prepare me for becoming a company chairman someday," he says.

Champion was attuned to his needs, and when he left he was president of Champion Packages Co. Says Mr. McLaughlin: "Those were 13 marvelous years."

Toro's size and strong franchise network—75 percent of its business is con-

sumer-oriented—are really what attracted Mr. McLaughlin. Soon after joining Toro, he assigned new priorities to various products other than mowers. Before long, there were four new divisions: International, consumer, irrigation, and institutional products. In addition, Mr. McLaughlin has attracted more young managers to the company and has established profit centers to encourage initiative and product development.

Hands-on approach

Companies, like people, have personalities. Toro seems to reflect the low-key but intense nature of its chief executive officer. Still, his is not a relaxed management style. He calls it a hands-on approach.

Mr. McLaughlin has a propensity for details. "I really get into some operating areas in greater detail than most people probably would," he admits. "When broad decisions have to be made, I want to be able to put as much knowledge behind them as I can."

The name McLaughlin is mentioned in both Scottish and Irish records as early as 1062. "It used to be spelled M-a-c-L-a-u-g-h-e-n, but the Irish somehow got into the family, and the present spelling evolved over the years," he says. "I find it difficult to identify with the Scottish heritage," he adds. "I don't have the thrift characteristic."

Workdays begin early for Mr. McLaughlin, who likes to be at his office no later than 7:30. He drives himself to work. "A chauffeur isn't my style; too showy."

Ten or 11 hours later he departs for home, a picturesque country estate located on a wooded knoll overlooking one of Minnesota's placid lakes. Not surprisingly, the grounds surrounding



A fierce competitor, Mr. McLaughlin enjoys tennis, which he and his wife Judy play several times a week. In his senior year at Dartmouth College, he was named best all-around athlete.

the home of Mr. and Mrs. McLaughlin look like a meticulously maintained golf course. He tests many of Toro's products at home, from hedge trimmers to irrigation systems.

Mr. McLaughlin, like most chief executive officers, regards time as his nemesis. Commercial airline flights are opportunities to work; early morning hours—5:30 on occasion—are ideal for accomplishing special projects.

But when it's time to relax—he decides when that is—he relaxes.

Of his two sons and two daughters, only Jay, 16, is still at home, but during the summer they all visit. Boating and water skiing are among the family's favorite seasonal activities, and Mr. McLaughlin enjoys tennis and downhill skiing. One thing Mr. McLaughlin would like to do more of is leisure reading. "I consider it a real treat," he says.

A native of Grand Rapids, Mich., Mr. McLaughlin is president of the Outdoor Power Equipment Institute, the Washington-based trade association that represents the industry. He is also involved in other business, and chari-

table activities. As a result, he spends nearly half of his time traveling.

If he's not en route to a civic or board meeting somewhere in the Midwest, he's probably on his way to Hanover, where he presides over Dartmouth College's board of trustees, or to Washington, D.C., where he attends board meetings of the Chamber of Commerce of the United States.

It's an extremely demanding schedule. But, he is quick to point out, "if I weren't enjoying it, I wouldn't be doing it." In an interview between trips, Mr. McLaughlin discusses Toro, the role of business in society and government, and his personal style of management.

What area holds the greatest potential for Toro?

It would probably be irrigation systems. We have done well on the golf courses, but we haven't even begun to move into the consumer side of it.

Irrigation also fits nicely into what we perceive as a major social need—better water management. That problem will be with us for some time, although it is not widely recognized

right now. We believe that automatic irrigation systems are the best way of using water.

Isn't that a bit self-serving?

We have tried to follow the practice that when we take a public position on an issue, it should be related to our self-interests. But that doesn't mean every position we take is prompted solely by self-interest. If our position on an issue is going to have validity, it must be attuned to society's needs as well as our interests. Every company must serve some need of society to stay in business. Ours is resource management of water.

Is water management an issue which you brought to Toro?

It's an area that I personally have championed, but there are other people who feel just as strongly as I. Water is common to everything that we do in this company.

Toro has come out with a new product called the hose and reel. Tell me about it.

It's an explosive product, unlike anything we've ever made before. It consists of a light, flexible hose that collapses to store compactly on a reel in a box about a foot and a half square.

Originally, one of our people saw a similar product in Norway. When we learned that it had no patents, we proceeded to find the most efficient way to produce it here. All our market tests said it would do well because it eliminates the hassle of using a garden hose. In fact, it could be an even bigger success than we had imagined. Our biggest concern now is that we could create a market for somebody else unless we move quickly.

How do you plan to keep up with demand?

We are establishing a new plant to make nothing but these hose products. We will probably break it off into a separate profit center, put one of our young, aggressive managers in charge, and let it fly.

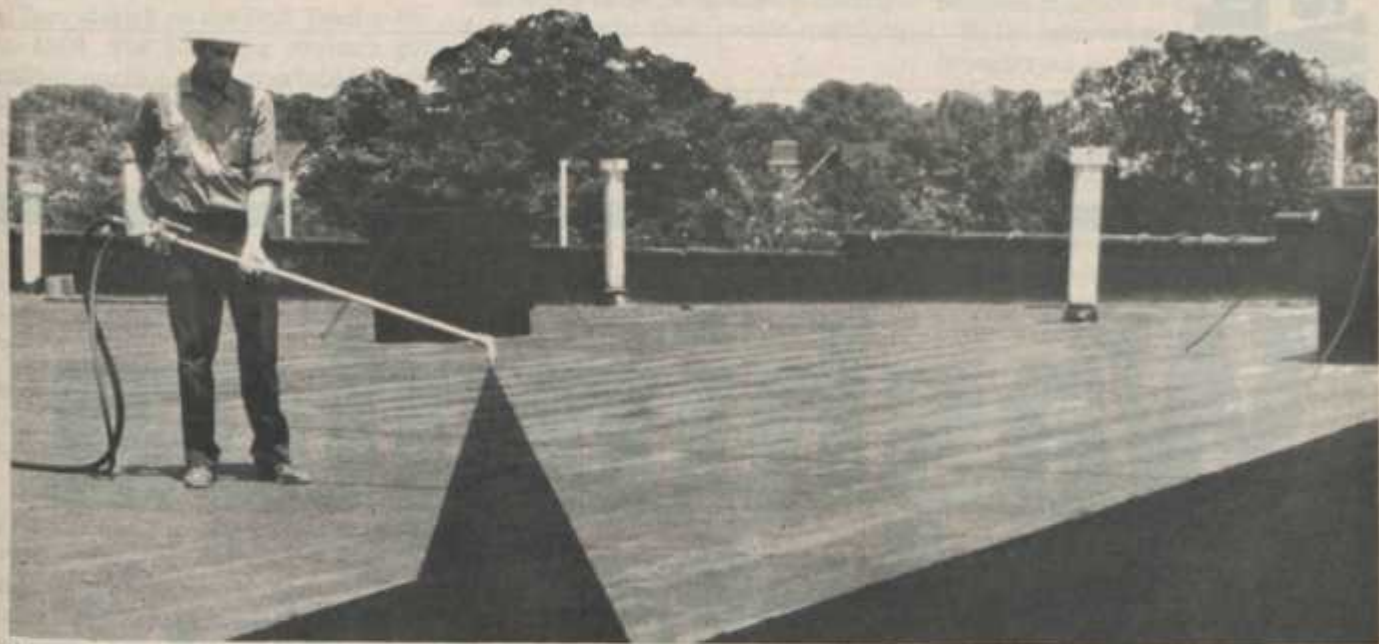
That strategy has been part of the reason for Toro's growth over the past ten years, hasn't it?

Yes. The company has grown by turning over pieces of the business to young people, giving them the responsibility and the backing, and letting them develop a concept.

What yardstick do you use to measure Toro's success?

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I happen to believe that profitability is much more important than sales. Another yardstick that I think is important is market share. We can be highly profitable, but if our market shares are declining, that means we're really liquidating the company, and that's not in the shareholders' interest.

Where did the name Toro originate?

It's a real macho kind of name, absolutely the best asset that the founders left the company.

Toro started as the Bull Tractor Co. in 1909. The founders couldn't get enough engines, so they created a subsidiary called the Toro Motor Co. I'm sure it was derived from the bull connotation.

The Bull Tractor Co. went bankrupt and left poor Toro without parent or customer. When I joined Toro, the symbol was a pair of bull's horns underneath the name. But that has since been dropped.

Many Toro products depend on the internal combustion engine. Is the fuel crunch a problem?

We don't think so. The amount of gasoline used in one of our engines over a season is something like five gallons. Also, home values are increasing all the time, and we believe people will want to protect and enhance their homes. That means spending more time caring for the grounds.

Where do you see Toro five years from now?

Probably twice its current size in terms of sales, which would put us somewhere in the \$700 million range. I see Toro still in the top 25 percent of publicly owned companies in terms of profitability, which is where we are today. And the company may diversify away from its current lawn and garden orientation.

Are you studying diversification possibilities now?

We are beginning to look at them. We don't want to slow down our basic business growth by acquiring something that has a flat growth rate. Nor do we want to acquire a business that is divorced from what we do or that we don't understand.

What would you like to change about the company?

I would like to see Toro broader based so that it is not as vulnerable to economic downturns.

Also, I wish we had the time and the

resources to do a better job of training our people for careers. We still go outside for specialized talent, sometimes at senior levels, and that is not fair to people who have spent their careers with us.

How much emphasis do you place on loyalty within the company?

I don't place overt emphasis on it. There is a certain discipline that goes with any organization, and I think that needs to be recognized. Similarly, I feel strongly that people ought to have an open door.

What led to the formation of Toro's political action committee last year?

The initiative grew out of a feeling that our people, particularly our managers, should become more involved in the political system. No company can really exist outside the government spectrum. We have a responsibility to try and influence government, not just for our own self-interests but also for the overall good of society.

Does government regulation have much impact on your business?

It does, and the impact is increasing all the time. The Consumer Product Safety Commission has promulgated mandatory safety standards for lawn mowers. The evolution of those standards was very frustrating.

Toro began drafting safety standards for lawn mowers in 1972, because we were concerned about the number of accidents. At first, the industry opposed our proposals as unnecessary, but most companies later joined the effort. Legislation was developed with the help of the late Sen. Hubert Humphrey, but it was superseded by the Consumer Product Safety Act.

The commission rejected our suggested standards, which I believe would have been effective, and instead asked the Consumers Union to develop its version. That was a long, protracted process, and the standards won't even take effect until 1982, almost ten years after we first requested them. The cost will be in the millions of dollars.

The most discouraging part is this: The industry took the initiative out of a belief that consumers, government, and business could work together, but the adversarial attitudes of regulatory staffers and some consumer advocates kept putting the industry on the defensive. We wanted safety standards, but they made it look as if we opposed them.

Do government and business necessarily have to be adversaries?

No. On consumer issues, the interfacing ought to be between industry and the consumer. Government should play the role of a catalyst and not dictate every turn.

There are certain things that need to be done by the government that business won't like. This is because some business actions have not been aboveboard. Too often, criticism of American business practices is deserved.

By the same token, business is wrongly portrayed by government as being a self-serving entity, and I categorically disagree with that. There is a greater sense of responsibility in the business community than the government gives it credit for, and there is more legitimacy to the free enterprise system than the government recognizes.

Most business people are trying to make a contribution by providing a service. We are attempting to run profitable organizations, which are also responsible to society. If firms really want to make an impact on congressmen or regulators, they should present their cases eyeball to eyeball.

Do you believe the dialogue between government and business is improving, deteriorating, or stagnating?

It's stagnating. A good dialogue re-



The wooded lakeside setting of the McLaughlin home provides the perfect environment for leisurely weekends.



David and Judy McLaughlin had a busier family life before their older son and two daughters grew up and moved away. Jay, 16, is now preparing for college. One thing remains consistent: Their informal life-style.

quires interaction and understanding. I sense there has been very little progress in either. The economic climate isn't helping any.

What will it take to turn things around?

Fundamentally, business must be able to plow back more capital into the business. There's simply no way this nation can stay low in productivity gains each year and prosper. We are at the bottom compared to other industrialized countries.

The government should promote profitability and the reinvestment of profits. In most instances, it has not done this. The government needs to promote international trade. Its policies have varied all over the lot. The government should stay out of most of the regulatory processes.

The government's approach to regulation is to write the whole book, page by page. If government would just write the table of contents, then business and other responsible groups could take it from there. Government could come back at the end and see if it's been done properly.

Do you think business in general is as involved as it should be in social issues?

Involvement is very uneven. In Min-

neapolis, I don't think you could ask for a more dedicated sense of social responsibility among a group of companies. There are 44 firms here that give five percent, the maximum, of their pretax profits to charity.

Business ethics has been a major issue in recent years. Do you believe business is doing enough to clean its own house?

It's doing more. The sense of awareness of ethical standards certainly went way up after Watergate. The other side of the ethical pattern, though, is not legal but moral.

By and large, many companies still hesitate to do the right thing if it will adversely affect the profit-and-loss statement.

It is often said that business can be its own worst enemy. Do you agree?

Yes. I think business creates a lot of its own problems. At Toro, we try in one way or another to put ourselves at risk. For example, we have outside auditors review our compensation practices with the board of directors.

We feel we must continually reassess and compare ourselves with public standards. I don't think business does enough of that. By being recalcitrant on issues, business creates a negative image.

What sort of relationship do you have with your employees?

It's respectful, but not as fulfilling as I would like.

When I feel strongly about something, I express my views, but I don't have the feeling that people hesitate to disagree if they think differently. There are many issues that I don't win.

What are your prime assets as a manager?

Dealing with conflict—the healthy conflict found in sound companies. Working within the management structure to bring about the best decision without having to make the decision myself. And challenging others to see if our goals are high enough or if there is a better way of doing something.

How much do you rely on intuition?

There is always an element of that. But I try to reduce my dependence on it by having good information and facts available. When you get right down to it, many decisions on products, people, and financial matters are intuitive because they're judgmental; not everything is exact.

What do you think are your shortcomings?

I have a tendency to focus on a single subject so intensely that I become insensitive to other things going on around me. At times I take on more than I should, with the burden falling not only on me but also on my wife and family. And sometimes I take too strong a position on issues, and that can be unhealthy, especially in management.

Do you have a high boiling point?

It really depends upon the issue. On things that are not too important but have a high nuisance value, I probably have a lower boiling point than I should.

Looking back, what was your most important decision—other than joining Toro, of course?

It was hiring Jack Cantu as president of Toro. I recognized that my own management style needed balancing with someone who was more relaxed, a person who had come up through the marketplace and could help younger managers move along.

What was your worst decision?

Actually, it was a family of deci-

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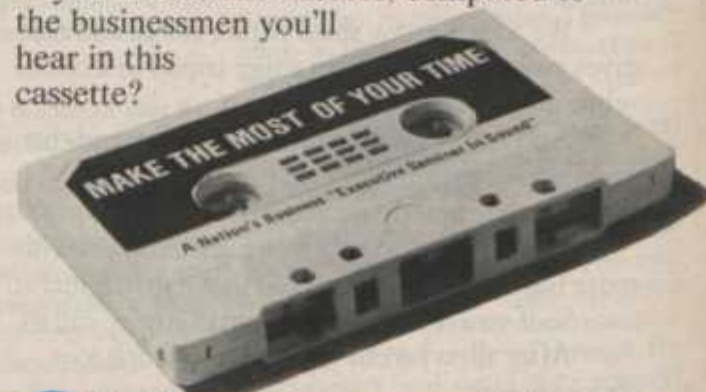
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Mr. McLaughlin sets aside at least one full day on the weekends when he can forget about the job and enjoy the company of his family, but during the week and most Sundays he spends several hours working at home in his den.

sions. We went into three businesses that were bad for us because they didn't follow the fundamental precepts that had made Toro a strong company. There was a playground equipment business that did not use Toro's name, a landscape contracting business that did not relate to our standard cost system, and a center pivot irrigation business that offered us no opportunity of becoming the leader.

I should have been able to recognize that those ventures weren't going to work. But we went into them, we got out of them, and we learned some very good lessons.

How much work do you take home with you?

Most evenings I take home at least an hour and a half's worth of reading and dictation. On Sunday night I return to the office for a couple of hours to prepare for the week.

Do you consider yourself a workaholic?

I don't, but my wife does.

Do you believe there is still widespread discrimination against women in business today?

Yes, although there is probably less now than there used to be. Even at Toro, there is a decidedly chauvinistic

attitude on the part of some of our older people, generally in middle management. It's not true so much of the younger people. On the other hand, I find that many women lack the ambition to make the commitment that it takes to move up.

How do you discourage sex discrimination at Toro?

We discuss it at our management meetings, and we go out of our way to work on the problem. By any practical measure, businesses of all types are going to need highly talented women managers, because they will help upgrade the level of overall management within any company. So it's not just a matter of social responsibility; there is a practical need to find the best management available.

Could you see a woman in your job?

Yes, I could. Ten years from now, it will be common for women to be strong candidates for most roles in large companies.

Were you ever tempted to pursue another career?

I once had an opportunity to return to Dartmouth as assistant dean of the business school. Then I recalled something the president, also a close friend, once told me: "Never return unless

you can bring back enough knowledge to offer the college something." I decided that I really did not have enough.

Do you still have as strong a competitive drive as you did while playing sports in college?

Yeah. I absolutely hate to lose. I think maybe I can rationalize it a little better now than then. Most of the time I can smile, but it still hurts just as badly.

Did former President Ford try to recruit you to play football for the University of Michigan?

Yes. He was a congressman from Grand Rapids at the time. He had been a great football player at the university. I kept telling him that I wanted to go to a small college back East just for the experience.

How did he react?

In essence, he wound up saying that he, too, thought that's where I ought to go.

As a student at Dartmouth you took part in an incredible number of extra-curricular activities. Did you ever feel overextended?

Yes, but you never realize that until after you're into things. It was really a feeling of commitment to be helpful to some enterprise, and the same is true today—whether it's Dartmouth, the city of Minneapolis, or Toro.

What led you to become so deeply involved in Dartmouth College as an alumnus?

Partly a love of the school. Partly a sense of obligation for what it did for me. And partly a belief that it is a fine institution.

Are you a sentimentalist?

In many ways, yes. I am terribly sentimental about certain kinds of experiences, and maybe an emotionalist about this country.

You recently accompanied Vice President Mondale on a trip to Latin America. What was the purpose of your trip, and what benefits were gained?

The trip lasted only four days, but it was very intensive. I suspect that part of the purpose was an attempt by Mr. Mondale to establish some ties with the business community.

If there were benefits, they were mutual. I'm sure I came away with more respect for Mr. Mondale, the problems

of government, and some of the complexities of decision-making within government. Hopefully, he came out of it with less skepticism about business.

What were your impressions of the Vice President?

I was more favorably impressed than I thought I would be. I thought he handled himself superbly in dealing with a variety of people in both Venezuela and Brazil.

My impression was that he is totally different than President Carter in several important ways. Mr. Mondale has a high set of principles, as does the President, but the Vice President also has highly tuned political antennae that tell him when compromise is needed to make progress.

The biggest difference between the two, from what I was able to observe, is that Mr. Mondale knows the political process.

Mr. Carter is naive and apparently does not have the ability to convert that naivety into action.

Do you have any political ambitions?

Every business person ought to fulfill some obligation through government service. I personally don't have any ambition to run for political office, perhaps because of the sacrifice that would be required.

At some point, however, serving in the federal government may be an alternative, although I don't covet it. If the right situation came along, I would consider it out of a sense of duty to the nation.

What bothers you most about society?

It's the progressive loss of freedom. There's been a growing tendency toward socialism. You can see it in Sweden and England.

In this nation the most optimistic thing I can see is a definite swing toward attempting to stem the government's invasion of the private sector. Hopefully, the younger generation will feel even more strongly about this.

Where do you see yourself ten years from now?

Probably not at Toro, although there is no certainty of that. Unless Toro grows dramatically, I don't see how I can stay as chief executive officer without diluting the opportunities for a talented management group that should have the room to move up.

Organizations are vibrant and alive.

I think the demands on a chief executive officer are such that you don't stay fresh and challenging much beyond ten or 15 years. That refers to all people in positions of accountability.

Would you care to head a substantially larger company, perhaps in a different field?

That's possible. I have not been tempted by other opportunities because I am still challenged at Toro, and I don't feel that I'm an obstacle in our organization.

It's not so much the size of a compa-

ny that appeals to me as the challenge.

Have you ever fantasized about living in a different era?

I suppose. I sometimes think I would like to have lived in the West during the 1800s, when pioneers were taming that frontier.

I relate to the pioneering spirit. There were great opportunities and challenges—and very little government interference. □



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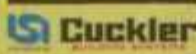
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People from all over the world attend the Offshore Technology Conference, a booming trade show that overflows the Houston AstroDome and covers 450,000 square feet, indoors and out.



The U. S. Sailboat Show in Annapolis, Md., has an estimated attendance of 100,000. The maze of masts and lines comes from more than 430 boats.



Major medical trade shows like this one in Dallas for eye, ear, nose, and throat doctors offer an opportunity for close examination of new equipment.



It takes a big hall and carefully planned logistics to display the Coal Show's giant off-road equipment at the Kentucky State Fairgrounds in Louisville.

How American Business Shows Off...

PHOTO: MARGO CRISTELLO



Trade shows are the business of doing business. Studies show that exhibits like this one at the Direct Mail/Marketing Association show can cut the cost of a personal sales call by 60 percent.

Exhibitions provide the stage for industry to attract customers, sell products, and influence consumers

By John H. Jennrich

FROM a dusty marketplace to a huge, protected coliseum, every merchant knows one truism: If the customer can see the product—feel it, kick it, jump up and down on it—chances are he will buy it.

That's the reason for today's industrial trade shows and public shows.

By having the buyers visit the sellers, shows sell better, cheaper, and easier than salesmen in the field.

While there are still plenty of dusty marketplaces or their equivalent, more and more shows are being held in modern halls designed for that purpose. The largest in the United States is McCormick Place in Chicago.

A typical show

Hubbard H. Erickson, Jr., of the National Association of Exposition Managers, describes a typical McCormick Place trade show: It covers about 25 acres—reserved eight years in advance; hundreds of exhibitors spend nearly \$1.5 million to rent that space, then another \$6 million-plus for exhibits; there are 3.5 miles of draped partitions, 2.5 million pounds of freight, 24 trailer loads of furniture and carpet; the work is done by 397 carpenters, 104 teamsters, 39 riggers and machinery movers, 57 electricians, 84 decorators, and 53 cleaners—plus private police, firemen, and nurses.

The show is open for only 24 hours—three days for eight hours each—but draws 25,000 people from all over the United States and 63 foreign countries.

That is slightly more than average attendance for a trade show; many are much larger. There are also more than 700 public shows that draw 60,000 or more people.

The Trade Show Bureau, a data-gathering organization sponsored by eight associations involved in putting on trade shows, says there will be 8,591 trade and major public shows in 1979. To participate in these shows, industry will spend up to \$4 billion. There will be about 50,000 exhibitors and more than 35 million people attending. The dollar volume of business initiated or conducted at trade and public shows is incalculable.

Ten years ago, says one expert, there were perhaps 15 cities with halls large enough to handle shows drawing up to 20,000 people. Now, 142 cities have this capability.

The main building of McCormick Place offers 750,000 square feet of space. There are another 330,000 square feet in adjacent McCormick Place West, which itself ranks eighth in size among exhibition halls.

Wayne Dunham of the Chicago Convention and Tourism Bureau says it was hoped that the second hall would

mean more shows; while a show ran in one hall, another exhibit could be set up next door.

"This is happening somewhat," he says, "but also the larger shows are expanding and using both buildings."

Last September, the International Machine Tool Show not only used both buildings but added 200,000 square feet of temporarily enclosed space on the mall.

While the average show is a lot smaller in size, the object is the same: To attract customers and sell products. The customer may be a retailer, a manufacturer, or a consumer, the target of the public shows.

Sailboats in Annapolis

The United States Sailboat Show in Annapolis, Md., oldest (nine years) and biggest of the in-the-water boat shows, is both a trade and public show. Exact attendance figures are known only to the show's owners, but an estimated 100,000 people flock to the cramped Annapolis waterfront every spring for what most observers agree is the best-selling sailboat show in the world.

"We almost try to discourage numbers," says principal show owner F. Jerry Wood. "We try to get good buyers."

One way to reduce hull-kickers and increase check-writers is to charge a

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Barnett C. Young of Uarco, Inc., a Baltimore graphics firm, makes his pitch. Uarco budgets \$8,000 for four men for four days. "It's worth it," says Mr. Young.

stiff admission fee. Another barrier is the weather.

"Rain just qualifies the audience more," says Bennett Crain, another boat show partner. Translation: More avid sailors who spend money attend rather than families just out for a sunny Sunday outing.

Whatever the method, the show produces buyers.

"There would not be any Shannon Boat Co. if it were not for the in-the-water boat shows," says that firm's president, Walter Schulz of Bristol, R. I. "They build reputation and exposure."

William H. Shaw, vice president-marine products for the Pearson Yacht Division of Grumman Allied Industries, Inc., says boat shows are an opportunity to take the economic pulse of buyers.

"These shows don't necessarily produce direct sales, but they contribute immeasurably to the final sale," says Mr. Shaw, whose division builds more than 700 sailboats a year.

Anthony Rusich, president of Sound Spars, Inc., which makes masts, booms, and hardware, goes to only one show: Annapolis.

"It's hard to measure show impact, but people do remember you, and it's good to communicate with people and see what they want," he says.

While not many boat owners are in the market for spars, Mr. Rusich also makes original equipment for boat manufacturers, whose top executives are selling to consumers at the show.

James M. Tindall III, president of Coast Navigation School and vice president of Navigation Instruments, Inc., both in Annapolis, says:

"We can check out our competitors and find out what people are saying about our products. People don't write letters, but they will talk to you at a show."

Considering the multitude of details that have to fall into the right place at the right time, it's no surprise that just putting on shows is a business in itself. And not one for those who are reluctant to get their hands dirty.

Carnival-like

William A. Saxton of Wayland, Mass., consultant to the computer industry and chairman and a principal owner in the new Federal Computer Conference held in Washington, D. C., considers most trade and consumer shows crass and carnival-like.

His professional, high technology show is helping to shape the computer industry's destiny, he says. Maybe so, but the day before the show was to open, Dr. Saxton, whose degree is in applied physics, was checking on the

Panning the Trade Show

Not everyone likes trade shows. "We held our first one in April, 1976," says Marion Kershner, executive vice president of Meeting Planners International, a 2,500-member association in Middletown, Ohio. "After that one experience, our board said 'no more.'"

Mr. Kershner says MPI is an educational organization; the trade show concept didn't quite achieve its goal. Instead, MPI developed Interface, a session of 42 eight-minute periods during which buyers and suppliers of meeting space meet by prearranged computer matching.

Here's how it works. Before the annual meeting in June, buyers and suppliers—all members of MPI—complete profiles on themselves. Summaries of these are sent by MPI to everyone. Then, members complete another form, listing 30 people they would like to talk with at the

meeting. With the forms in, the computer does the best it can in fulfilling the requests, finally spitting out a printed schedule for each member.

At the annual meeting, the users of space get permanent locations, each site having a table and two chairs. Suppliers go from one appointment to the next, with each uninterrupted interview lasting eight minutes. Two minutes are allowed for travel time between appointments.

Suppliers do the traveling, Mr. Kershner says, because MPI doesn't want them at the meeting with big displays or audio visual equipment. The most they can carry is brochures.

"This is a learning experience," says Mr. Kershner. "Even if there's no buying and selling, you can't have two experienced people in the trade sit down for eight minutes without both of them learning something."

So far, the concept has worked.

Last year, MPI had 500 people at its annual meeting in Cincinnati. This year, says Mr. Kershner, he expects 750 to attend the third annual Interface, to be held in Dallas.

Does MPI's success suggest that trade shows are obsolescent? Mr. Kershner won't say that; he just says they don't meet MPI's needs.

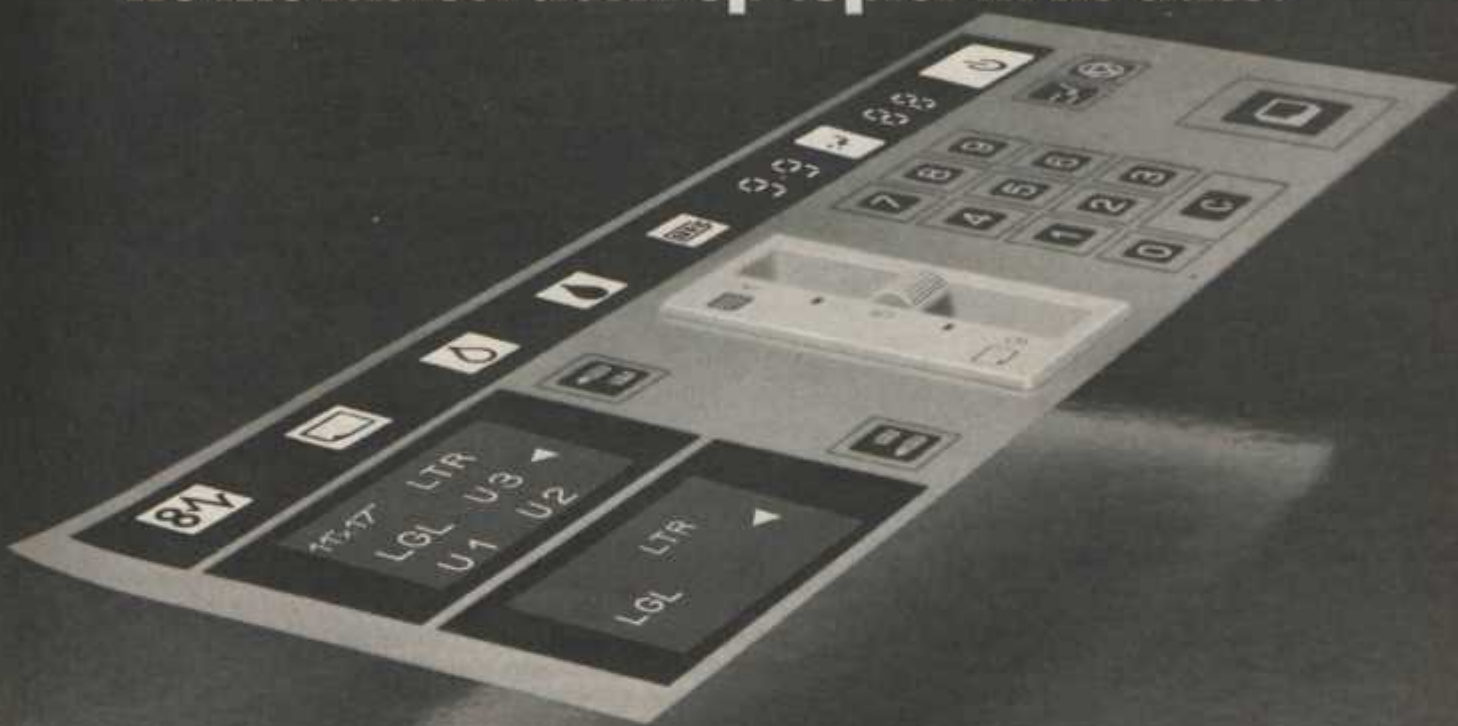
But there may be a limit on how many shows an exhibitor should attend.

Al DeAngelus of Philadelphia, who publishes a newsletter about boat shows, says there are "too many shows too expensive to attend. Not so much show cost, but loss of time, sales effort, expenses. Industry is taking a closer look at each show and becoming more selective."

"All shows receive good to great reports. . . . However, some fear that a good show does not a profitable year make."

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carpets in the hotel ballroom and helping the show manager deal with exhibitors' problems.

At one point, he asked rhetorically: "What's a Harvard Ph.D. doing picking out the Danish pastries?"

Utopian goal

It took Dr. Saxton nine months to prepare his conference and show, with a lot of help from H. G. Asmus, a consultant from Ridgewood, N. J., who is the show manager. Mr. Asmus, who specializes in computer-related trade shows, has done 80 to 100 in the past 15 years.

His job is to inform the exhibitors of necessary details and to supervise the setup of the show. He works closely with the decorator, who is responsible for the assembly, construction, and dismantling of displays.

Mr. Asmus has a utopian goal: To please all of the people all of the time. Ease of access to the exhibit hall, the number of loading docks, availability of sufficient labor, and cooperation of hotel staff are just a few of the problems that must be overcome.

Mr. Asmus characterizes towns as good or bad for putting on shows. The bad ones, he says, are those where exhibitors "can't lay hands on the exhib-

its until the union members that put them up have left the hall."

Show operators also cite problems with union stewards who offer preferential service for a fee. In a hall swarming with exhibitless exhibitors, the temptation is to spend a little extra to get set up early. Promises aren't always kept, however, and there is little recourse for an exhibitor who feels cheated because show-wide union contracts prevented him from setting up his own exhibit.

Vincent Colley, account executive for Exhibit-Aids, Inc., compares work done by labor unions in Washington and Philadelphia.

Standard booth

A standard exhibit booth is ten feet by ten feet, with draperies hung from pipes plus an identification sign. Decorators like Exhibit-Aids are paid a fixed fee—about \$10—for erecting pipe and drapes for each booth. The decorator in turn pays the workers, but the fee isn't fixed.

In Washington, says Mr. Colley, he deals with the teamsters and carpenters unions—and the cost runs \$5 to \$6, so he stands to make some money.

But in Philadelphia, he deals with the teamsters who unload the materi-

als, the riggers who set up the pipes, and the carpenters who hang the drapes. Mr. Colley says that in Philadelphia he generally loses money on the booth, up to \$30 if overtime is necessary.

Mental scorecard

But all problems aren't related to labor unions. In one city, commercial vehicles were prohibited from unloading on Sundays, says Mr. Asmus, and to meet his schedule, he persuaded traffic police to look the other way.

Claude Viar, general manager of Exhibit-Aids, has a mental scorecard of cities that tallies with Mr. Asmus's, but he also notes that a bad city for a contractor can be good for exhibitors. Mr. Viar is more concerned with the problems that are inherent in any logistical operation. There is always one exhibitor who doesn't get the word, or who chooses to ignore the instructions, or whose display materials, bound from San Francisco to Washington, inexplicably end up in Kansas City.

Nevertheless, says Mr. Viar, the show has to open on time—"that's your dictator."

"Putting together a show is like playing a football game," he adds. "You try to avoid making mistakes."

One way is by extensive preparation: he has eight staffers working on advance orders.

Back-to-back shows

Setting up in an empty hall would be hard enough, but frequently shows are back to back. Mr. Viar has broken down one and set up another in 36 hours. He did eight back-to-backs in 1978.

One example of the logistical problem is the 1978 boat shows in Annapolis. In 64 hours, workers and exhibitors removed 434 sailboats (243 in the water) and replaced them with 256 power boats (134 in the water); removed 865 feet of floating dock and replaced it with 500 feet for the power boat show; and took out two movable bridges, replacing them with one.

Precision timing is important. At the power boat show, boats in the water are scheduled to dock at five-minute intervals. If an exhibitor misses his cue, he's out.

Regardless of its type, once the show opens, "traffic flow is most important," says R. Penn Lardner, Jr., floor manager for a recent trade show put on by the Direct Mail/Marketing Association, Inc.

He spends most of his show days

PHOTO: MASH CASTELLO



Even setting up an exhibit at a computer show requires manual work in less than elegant surroundings. This year, more than 50,000 exhibitors will spend up to \$4 billion to display their wares at trade and public shows.

with a walkie-talkie stuck to his ear, unraveling snafus and fulfilling the last-minute demands of exhibitors.

Is it worth it, all the hassles involved in solving other people's problems?

Yes, says Claude Viar. "Where else can you touch the product?" he asks. "The way to sell it is to let people see it."

Barnett C. Young, account executive for Uarco, Inc., a Baltimore graphics firm, says his company spent \$3,000 for its display and budgeted \$8,000 for four men for four days at a recent Washington show.

"We get good customer contacts, and we gain a lot of knowledge about what others do," he says.

A lot cheaper

And if one survey is right, trade shows are a lot cheaper than calling on customers individually. The Trade Show Bureau says it costs \$97 for a field salesman to contact a qualified buyer; at trade shows, that contact cost averages \$39.

William W. Mee, managing director of the bureau, says trade shows are no longer an excuse to have a good time, but rather are "an intensive, exhaustive selling experience."

He says that many exhibitors at trade shows plan strategy carefully and follow up leads.

Says Andrew S. Linick, a psychologist from Middle Island, N. Y.: "Trade shows are a great way to meet decision-making executives of major corporations. These people can purchase goods from suppliers without going through several levels of approval."

"Trade shows are really the heart of American business," he adds.

Raves for Dallas

One person who plans to capitalize on trade show popularity is Preston Robert Tisch, president of Loews Corp., chairman of the New York Convention and Visitors Bureau, and founding chairman of the New York Convention and Exhibition Center Corp.

He wears a Big Apple pin in his lapel, but his biggest raves right now are for Dallas, Texas, and the new Loews Anatole luxury hotel built next door to the Dallas Market Center complex, which has 4.8 million square feet of exhibition space in six buildings. Of this, only about 500,000 square feet is for transient shows; the rest is permanent showroom space. By October, that total space will be expanded to 7.2 million square feet.

Mr. Tisch says that costs of exhibi-



Claude Viar (left), general manager of Exhibit-Aids, Inc., and H. G. Asmus, manager of the Federal Computer Conference, hash out show set up plans on a packing crate. Putting up and taking down shows require logistical genius and patience. Nearly 8,600 trade and major public shows will be held in 1979.

tions "are more reasonable today than they were ten years ago, primarily because of competition."

Even the federal government is getting into the act with promotion that taps foreign buyers. Joseph Miller, director of the foreign buyer staff for the Commerce Department, says that a dozen or so shows are picked each year and promoted overseas.

Mr. Miller says that promotion results in a 52 percent increase in foreign buyer attendance compared with previous shows not promoted by the federal government.

Also, foreign buyers buy more than their domestic counterparts. Mr. Miller says that one restaurant supply show drew ten percent of its attendance from overseas, but 50 percent of the sales came from foreign buyers.

Although the United States has not relied as heavily on trade shows as many major European countries do, says Mr. Miller, this situation may change since there have been enormous strides in the past ten years in upgrading trade shows.

That upgrading is reflected in the economic effects on cities where trade shows are held. Mr. Dunham of the Chicago Convention and Tourism Bu-

reau says the average person attending a trade show there spends \$189 during an average stay of 3.2 days.

Then there's the multiplier effect. Mr. Dunham says those dollars are spent five times before leaving Chicago, going from exhibitor to supplier to subcontractor to employee to rental agent to grocery store.

Impressive impact

Over a year, the impact is impressive. And a comparison with other business meetings is revealing.

During 1978, Mr. Dunham says, there were 15,600 corporate meetings in Chicago, attended by 558,000 people who spent \$52.7 million.

There were 1,089 conventions attended by 464,000 people who spent \$87.7 million.

And, finally, there were 174 trade shows involving 1.3 million people who spent \$384.3 million—more than 73 percent of the total for all three categories.

With that kind of economic presence, trade shows take top billing in the meetings industry. □



To order reprints of this article, see page 78.

Anatomy of a Consensus

The Joint Economic Committee agrees: Inflation is the real problem, and regulation is a major cause



The Joint Economic Committee, under chairmanship of Sen. Lloyd Bentsen (D.-Texas), agreed unanimously on an annual report that calls for strengthening business to achieve economic stability.

TEN YEARS AGO, traditional economic policies simply stopped working in America. Frantic efforts to fine tune the economy did not stop it from seesawing between inflation and recession. The new economic policy was old before it was adopted, and mandatory wage and price controls only exacerbated stagflation.

Public confidence in the ability of any administration or congress to halt double-digit inflation eroded. The Consumer Price Index became the number one political liability with no respect for party lines. Prices climbed, and most of the WIN buttons—from President Ford's Whip Inflation Now campaign—stayed packed away.

Heavy clout

The spring of 1979 brought a policy breakthrough. The congressional Joint Economic Committee issued an annual report that stated, in essence: Strengthening business would bring about economic stability.

The joint committee is not a legislative body, but it carries heavy clout in setting the nation's economic goals and priorities. It was formed by the Employment Act of 1946, which sought to

integrate the country's mishmash of economic programs.

The President's Council of Economic Advisers, which was also born under the act, annually prepares a report that is submitted to Congress for consideration. The JEC holds hearings on the report and sends its conclusions to Congress.

The 1979 report, signed by the 20 committee members, marked the first time in as many years that this blueprint for the economy had been unanimously drawn up.

The report also marked a complete turnaround in economic thinking. Inflation, the report concludes, is the real problem, regulation is a major cause of inflation, and the nation's economic malaise stems from an inadequate supply of goods rather than from excessive consumer demand. What this means is that if business is given the proper incentives, productivity will rise, and prices will go down.

Previous policy had accepted as truth an economic phenomenon known as the Phillips curve—that a decline in prices necessarily results from taking enough steam out of the economy to increase unemployment.

However, strong business activity can stabilize the economy, keeping prices level and employment high.

Sen. Lloyd Bentsen (D.-Texas), chairman of the JEC, has been introducing legislative measures since 1971 to bolster business performance. "Events have finally caught up with the prophecy," he says. "The economic woes I said years ago would occur in the future unless economic policy was changed have occurred. The future is now."

People catch on

"We've concentrated on the consuming side all these years. It's time to concentrate on the supply side and the modernization of productive capacity."

Giving business the wherewithal to modernize its plants and equipment is essential to ending today's double-digit inflation, according to Sen. Bentsen. He thinks the time is right for an economic policy turnaround. "We've been making some headway," he says. "You have to say these things 14 times, but people finally catch on."

The JEC chairman has learned that the hard way. He began a series of hearings on capital formation four



Rep. Richard Bolling (D-Mo.) says this Congress will be more receptive to probusiness proposals, but enough liberals are around to cause problems.



Sen. Jacob K. Javits (R-N.Y.) believes business now has its biggest chance since 1932 to rehabilitate itself in the eyes of the public.

years ago, and now "we are just beginning to build support for it."

Sen. Jacob K. Javits (R-N.Y.) says the changing times give business "its biggest chance to rehabilitate itself in the eyes of the public since 1932."

He believes the public will support probusiness measures. "People realize that 90 percent of all employment comes from business and that we need business if we are going to be strong as a nation," he says. "They know the government doesn't make anything. People are receptive to ways in which business can help the economy."

New ballgame

JEC members and staffers deny that the report was the result of the new conservatism in Congress. "The new Congress is more probusiness with a disposition to provide more assistance to business," says Sen. William Proxmire (D-Wis.), a former JEC chairman, "but the crux of the matter is the new economic ballgame."

Rep. Richard Bolling (D-Mo.), Sen. Bentsen's predecessor and now chairman of the House Rules Committee, feels that Congress is more receptive to probusiness proposals, but says there

are still enough liberals around to cause problems.

"The older members in service and age are not willing to budge from their more demagogic positions," he says. "But now, for the first time in a great many years, we have a majority that has been elected in the past four or five years. I see some hope there."

John Stark, the just-retired lawyer who has been committee staff director since 1962, suggests that the turnaround in thinking may have been as recent as the midterm election.

"The past election disturbed members who sensed a great deal of popular dissatisfaction with inflation and the difficulties of our growing dependence on the world economy," he says.

"Members had been very skittish about committing themselves in economic matters, but the new report provides a common denominator. It has continuity with the public's perception of the economy," he concludes.

"The unity achieved in the report has more to do with economic circumstances than with a more conservative Congress," says a Capitol Hill economist.

"I don't think the change in congress-

sional attitude is as important as the fact that the members of Congress and the public are anxious about where the economy is headed. There is always temptation to pick leaders who move events, but the fact is that events take their own course. We now realize that's what has happened."

Rep. Henry S. Reuss (D-Wis.), a JEC member and chairman of the House Committee on Banking, Finance and Urban Affairs, puts it succinctly: "Times have changed."

Criticism for the liberals

Rep. Reuss adds that "we liberal Democrats got some criticism for going along" with the report, but the economic times made the report's recommendations necessary.

He does not think the JEC members will remain cozy. "By a serendipitous set of circumstances we got a unanimous report this year, but the economic situation won't go on forever," he says. "There may come a time when members will split along party lines."

Sen. Javits does not agree. He likened the JEC's new economic attitude to the well-known maxim of former New York Mayor Fiorello La Guardia: "There's no Republican or Democratic way to collect the garbage." Says Sen. Javits: "Reasonable men can agree if they are willing to forget the small points and look at the big problems of the country." One point committee members do agree on is that Sen. Bentsen was the pivotal person in forming the JEC consensus.

Right for a consensus

"Sen. Bentsen is consummately right for achieving a consensus. While Sen. Bentsen is partisan, he is more conservative than the northern liberals and is well attuned to the structural problems in our economy," Mr. Stark says.

"If I had to pick someone to move into a new era, it would be hard to find anyone better than Lloyd Bentsen," says Mr. Stark, whose tenure as JEC staff director began with Rep. Wright Patman's first term as chairman.

Says an economist who works with the committee: "Sen. Bentsen believes it is always best to bring people together."

Who's Who on the Joint Economic Committee

The Joint Economic Committee's ten senators and ten representatives collectively have the clout to turn the committee's ideas into legislation. Members are:

Sen. Lloyd Bentsen (D.-Texas), chairman, a former businessman who is also a member of the Finance and Environment and Public Works committees.

Rep. Richard Bolling (D.-Mo.), vice chairman, who preceded Sen. Bentsen as JEC chairman. He is chairman of the Rules Committee and the author of two books on Congress.

Sen. William Proxmire (D.-Wis.), chairman of the Banking, Housing, and Urban Affairs Committee and a past chairman of the JEC.

Sen. Abraham A. Ribicoff (D.-Conn.), chairman of the Governmental Affairs Committee and a member of the Finance Committee and the Joint Committee on Taxation.

Sen. Edward M. Kennedy (D.-Mass.), chairman of the Judiciary Committee and a member of the Labor and Human Resources Committee and Technological Assessment Board, which he has chaired.

Sen. George McGovern (D.-S. Dak.), ranking member of the Agriculture Committee and currently chairman of its subcommittee on nutrition and a member of the Foreign Relations Committee.

Sen. Paul S. Sarbanes (D.-Md.), member of the Foreign Relations and Banking, Housing, and Urban Affairs committees.

Sen. Jacob K. Javits (R.-N. Y.), member of the Governmental Affairs and Finance committees.

Sen. William V. Roth, Jr. (R.-Del.), member of the Governmental Affairs and Finance committees.

Sen. James A. McClure (R.-Idaho), member of the Appropriations and Energy and Natural Resources committees and of the ad hoc Senate Steering Committee.

Sen. Roger W. Jepsen (R.-Iowa), member of the Armed Services and the Agriculture, Nutrition, and Forestry committees.

Rep. Henry S. Reuss (D.-Wis.), chairman of the Banking, Finance, and Urban Affairs Committee.

Rep. William S. Moorhead (D.-Pa.), member of the Banking, Finance, and

Urban Affairs and the Government Operations committees.

Rep. Lee H. Hamilton (D.-Ind.), member of the Foreign Affairs and Standards of Official Conduct committees.

Rep. Gillis W. Long (D.-La.), member of the Rules Committee.

Rep. Parren J. Mitchell (D.-Md.), member and former chairman of the Congressional Black Caucus, member of the Budget Committee and chairman of the Banking, Finance, and Urban Affairs Committee.

Rep. Clarence J. Brown (R.-Ohio), member of the Government Operations and Interstate and Foreign Commerce committees.

Rep. Margaret M. Heckler (R.-Mass.), member of the Agriculture and Veterans' Affairs committees and the House Environmental Study Conference.

Rep. John H. Rousselot (R.-Calif.), member of the Ways and Means Committee.

Rep. Chalmers P. Wylie (R.-Ohio), member of the Banking, Finance, and Urban Affairs and Veterans' Affairs committees.

er. He tends to see the wisdom and error on both sides."

With all that going for him, it was still not easy for Sen. Bentsen to formulate economic agreement. While the late Sen. Hubert H. Humphrey (D.-Minn.) and Rep. Bolling, both former chairmen, had laid the groundwork, the actual building of the consensus was Sen. Bentsen's achievement.

The report itself received more input from committee members and staff than any previous one. An early draft was presented before the congressional political caucuses, and this was followed up with a series of seminar-like discussions.

The committee's new executive director, John M. Albertine, and his staff won high praise from committee members for working many nights and weekends in the committee's cramped quarters in the basement of the Dirksen Senate Office Building. So spartan is the physical atmosphere of the staff quarters that one inhabitant refers to the layout as "the Robert Hall of economic institutions."

JEC members themselves put in an

unusual amount of time and effort on the report. It was sent to them for approval piecemeal in hard-to-read computer type.

But read it they did, and their copies of the printouts would often be returned the next day with marginal notes in their own handwriting.

As this went on, Sen. Bentsen was on the telephone to JEC members and their staffs, calculating where to compromise and where to convince.

Finally, after weeks of hearings, drafting and redrafting, telephone calls, and discussion, the landmark document emerged. Its impact depends on what Sen. Proxmire calls the intestinal fortitude of committee members to see it through.

Basic philosophy

It will also take some fortitude on the part of both the administration and business community, says Sen. Bentsen, who is eager to turn many of the report's recommendations into legislation.

He plans to reintroduce an accelerated depreciation bill this year, which

he sees as consistent with the basic philosophy of the report, but expects both administration and business resistance in some areas.

Short-term loss

"President Carter will be concerned because of the short-term loss of revenue to the Treasury, and business will be concerned because the bill will decrease reportable profits, although it will increase cash flows," Sen. Bentsen says. "The problem we have over and over again is concentrating on the short term rather than the long term."

Sen. Bentsen is also working on a package of productivity amendments containing tax and patent law changes and will offer six bills dealing with regulatory reform.

The Great Depression proved that wars change the economy overnight; economic policy does not. "We have to recognize that it's going to take a long time to get ourselves out of this economic wilderness," says a congressional economist.

"I think the JEC is pointing the way out of the woods." □



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- Can you deliver my order on time?
- Have you told me everything I need to know?
- Can I depend on you?
- Are these figures correct?
- Are you confident about this investment?
- Will they settle out of court?

When you ask a direct question you deserve a straight answer. And that's the beauty of the Truth Machine: it will give you a straight answer. . . even if someone else doesn't. It's your best possible defense against doubt, risk and deception!

YES, IT'S ETHICAL!

It's simply a fast, efficient way to verify the truth and protect yourself against dishonesty. And after all, which is immoral - for a person to be deceitful or to have their dishonesty uncovered? There is nothing unethical about uncovering deceit and deception. In fact, you can usually prevent dishonesty, simply by letting everyone know that you own the Truth Machine. It's a powerful deterrent for anyone who is tempted to mislead you or tell you less than the truth!

IT'S AMAZINGLY SIMPLE!

Like many technological discoveries, voice stress analyzers grew out of military research during the Vietnam war. Army intelligence needed something better than the standard polygraph to interrogate prisoners. A simple method that could be used without the subject's knowledge. The voice stress analyzer was the result!

The principle is remarkably simple. Scientists already knew lying produced unconscious and uncontrollable stress that could be recorded by a polygraph. Researchers soon discovered that this stress also affected the muscles controlling the vocal cords, and caused an inaudible "microtremor" in the voice. All that was needed was a device sensitive enough to pick up and record these inaudible vibrations. And that was a relatively easy accomplishment considering the state of modern electronic technology.

ible "microtremor" in the voice. All that was needed was a device sensitive enough to pick up and record these inaudible vibrations. And that was a relatively easy accomplishment considering the state of modern electronic technology.

BUSINESSMEN BECOME MIND READERS

In addition to police and intelligence agencies, many of the "Fortune 500" corporations have quietly been using voice stress analyzers for several years. Large industrial and retail companies use it to control employee theft and screen job applicants. And dozens of large insurance companies have been using voice stress analyzers to uncover false claims. They simply tape an interview with anyone filing a suspicious claim, then playback the recording and monitor it with a voice stress analyzer.

In the past only the largest, most profitable companies felt they could justify spending \$1500 to \$5000 to purchase a voice stress analyzer. However, like everything else in the electronics field, these high prices reflect the heritage of a prototype, and not the quality of a reliable voice stress analyzer.

The new cost-saving, solid state, micro-chip technology has made voice stress analyzers affordable. Today, for only \$149.00 you can have a compact unit that is far more sensitive than the top-secret units originally used by the military! There is no better way to get at the truth. . . and remove the risk and uncertainty from those important decisions that face you every day!

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Because it can pick up and analyze any audible statement, use of the Truth Machine is limited only by your imagination. Seeing the meter go wild when politicians and celebrities give their 'candid' views during television press conferences and talk shows can provide you with hours of amusement. And while no evidence uncovered by any type of lie detector can be used in court, you can gain personal satisfaction by finding the truth behind many intriguing and controversial subjects. Use the Truth Machine to evaluate the candor of Richard Nixon, Patty Hearst or James Earl Ray. You may be surprised!

EASY TO OPERATE!

Unlike the polygraph, there are no sophisticated operating techniques to learn. You can easily master the Truth Machine after only one weekend of practice. You simply turn it on and adjust the sensitivity calibrator knob for average stress in the speaker's voice. Then sit back and watch the meter. When the needle moves into the stress area, you know you're hearing less than the truth. And it's versatile. You can pick up the speaker's voice with the Truth Machine's sensitive, built-in microphone. Or use the special sensor that connects it to

your telephone. You can even tape a conversation with any standard tape recorder, and analyze it at your convenience by attaching the special output jack and playing back the tape!

DEPENDABLE QUALITY

The Truth Machine from Microtronics is the ultimate voice stress analyzer. It features solid state electronics and is manufactured to the highest technological standards. Even its tough shatterproof case was designed to withstand the roughest handling. The Truth Machine is designed and built to guarantee you years of dependable use. It should never need servicing. But if anything ever does go wrong, Microtronics will repair it free of charge through their service-by-mail center and return it to you in a matter of days.

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We would like you to use the Truth Machine without obligation for 30 days. Experience its advantages. Take it to the office and enjoy surprising people with your infallible new 'insight'. Use it at home for entertainment and add a whole new dimension to your television viewing pleasure. If you don't agree that being free of doubt makes it possible for you to really relax and enjoy life more. . . simply return it within 30 days for a prompt, courteous refund.

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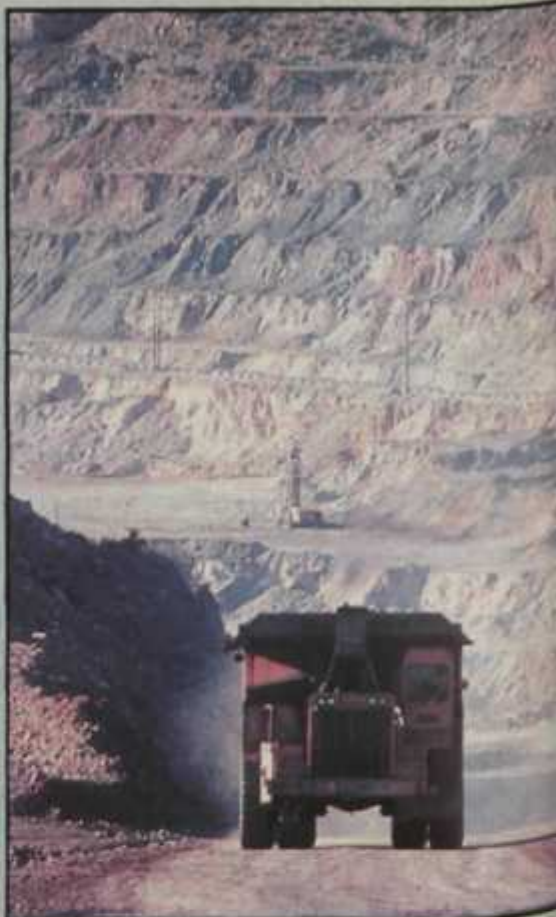
About 90 percent of the bauxite refined in the United States is imported. This plant in Corpus Christi, Texas, processes the ore and ships alumina to smelters.



Most overhead power lines are manufactured of lightweight aluminum. That and other electrical uses comprise ten percent of aluminum's market.



Ribbons of aluminum, for use in automobiles, airplanes, consumer products, and construction, are rolled out at the Alcan Aluminum Corp. mill in Oswego, N.Y.



The United States has the largest copper resources in the world; 1.5 million tons are mined annually.



Copper refining dates to 4000 B.C. Today, copper is used mostly in electrical equipment.

NONFERROUS METALS:

Try Living Without Them

Nation's Business INDUSTRY SPECIAL REPORT



FOR CENTURIES iron and steel have been the king and queen of industrial materials, but the 21st century may bring a challenge, if not change, to the line of succession.

The challenge is from the nonferrous

Within the commodities trading markets, nonferrous metals have done well, with prices generally rising during 1979. Paul Sarnoff, research director for Conti Commodity Services, Inc., says: "Metals have historically been the safe haven for

gine heads, manifolds, housings, fuel and water pumps, and fan blades.

Douglas A. Cornell, a spokesman for the Aluminum Association, says that the average 1979 American-made car contains 118 pounds of aluminum. "And the automakers are using more all the time," he says.

"As manufacturers try to lower car weights to reach fuel economy goals, more aluminum is expected to be used. Experts estimate about 250 pounds per car in the future."

Another vital transportation use is for airplanes and space vehicles. As one advertisement by the Aluminum Co. of America—ALCOA—bluntly states: "Aluminum. Try flying without it." Aluminum is also used in ships and boats ranging from skiffs to America's Cup 12-meter yachts.

Bridge components

In 1978, the aluminum industry shipped 14.4 billion pounds, up 11 percent from 1977, says S. L. Goldsmith, Jr., president of the Aluminum Association. "The building and construction industry took the largest portion of this, about 22.3 percent," says Mr. Goldsmith, "and the uses include sliding doors, windows, roofing, mobile homes, awnings, heating and ventilation, screening, guardrails on roads, and bridge components."

Containers and packaging used 21.7 percent of the 1978 aluminum shipments—about 55 percent of drink cans are made of aluminum.

Shipments to the electrical market accounted for 10.1 percent of the total. Other general uses are consumer durables, 7.9 percent; machinery and equipment, 6.8 percent; and miscellaneous, 4.5 percent. Exports accounted for the remaining 5.3 percent.

Aluminum metal accounts for 88 percent of consumption. Twelve percent is used as bauxite ore or as alumina, the middle stage of aluminum production. Both bauxite and alumina are used in the



Demand for lead used in batteries goes up with increased production of electric trucks and cars. This prototype was made by the Copper Development Association.

metals, led by aluminum, which became commercially available only 90 years ago, and copper, with its alloys of bronze and brass that go back to the dawn of industrial and artistic artifacts.

Even rare metals like platinum, rhodium, and palladium are being used more and more in industry; they are the keys to catalytic converters for automobile exhaust systems. One expert says that each year junked cars alone hold more than five tons, or \$60 million worth, of these metals.

Commodities trading

There are about 30 nonferrous—meaning noniron—metals. The major ones are aluminum, copper, lead, tin, and zinc. They are used increasingly in electronics, aerospace, and chemical or alloy applications.

capital in periods of economic instability."

Aluminum, processed principally from bauxite ore, is the most widely used nonferrous metal. Of all metals, it is second only to iron in both quantity used and value. Bauxite and other ores from which aluminum can be made comprise 8.3 percent of the earth's crust.

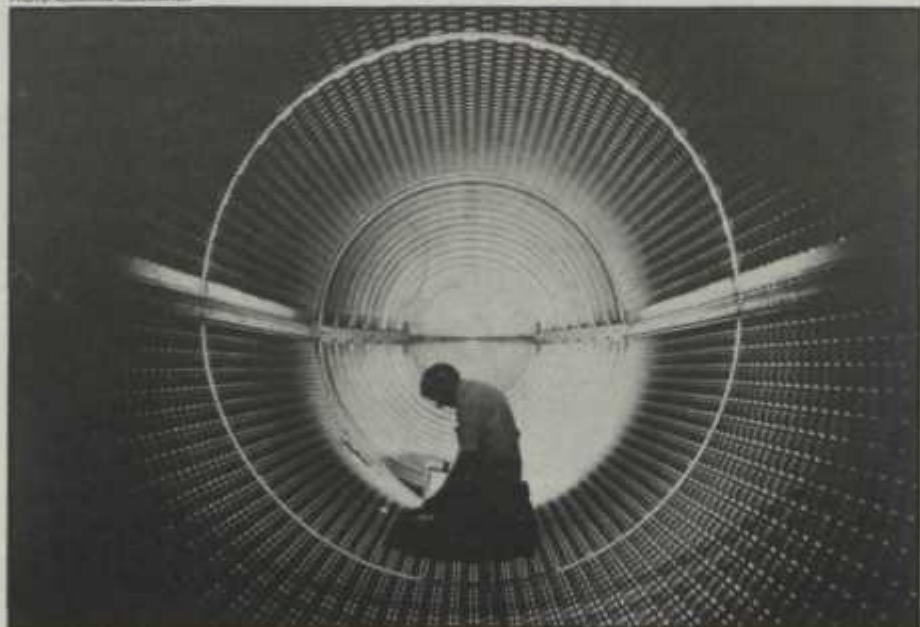
While aluminum requires a great deal of energy to produce, its use as a replacement for heavier metals such as steel is an energy saver. Each pound of aluminum substituted for steel saves 1.5 pounds in weight.

The transportation industry uses about one fifth of the aluminum output, with automobiles, trucks, buses, and trailers taking 80 percent of that amount. Aluminum is used to make bumpers, wheels, brakes, trim, body panels and hinges, en-



This copper-paneled solar pool heater saves homeowner Paul H. Nankivell of Los Angeles as much as \$100 a month on his heating bill.

PHOTO: ALUMINUM ASSOCIATION



The aerospace industry is a major user of aluminum and aluminum alloys. This worker is checking the cavernous insides of a Delta rocket.

chemicals and refractories industries; bauxite is also an abrasive.

The Commerce Department says that the total U.S. aluminum shipment in 1978 amounted to \$15.8 billion, up 14 percent over the previous five years. Employment in the industry totaled 216,000, up 1.2 percent in five years.

Largest producer

In many ways, aluminum supply is like oil. Most of the bauxite reserves are in the less industrialized areas of the world: Jamaica supplies 53 percent of U.S. imports; Guinea, 17 percent; and Surinam, 16 percent. The United States is the

world's largest producer and one of the principal consumers of aluminum.

"Because the United States imports most of its raw material [about 90 percent] for aluminum production," says the Interior Department's Bureau of Mines, "the availability and consumption of bauxite can be influenced by political and economic actions in other countries."

However, J. W. Stamper, the Bureau of Mines' expert on aluminum, says that the sources of U.S. imports are key factors. Referring to bauxite producers such as Jamaica, Australia, and Brazil, he says: "They're not considered our blood enemies, exactly."

To offset skyrocketing prices or a temporary disruption in supplies, the United States could fall back on its bauxite stockpile. "We have about 15 million tons," says Mr. Stamper, "which is about a year's supply." But the stockpile contains no alumina or aluminum metal.

Economic downturn

The outlook for aluminum depends on how far ahead the look is. This summer, Mr. Stamper sees a "general grinding down of aluminum demand" that "reflects a downturn in the economy." He says that "1979 could still turn out to have slight growth, but there may be very little growth, if any, in 1980." Commerce Department analysts looking to 1983 see a compound annual growth of 5.6 percent.

In 1978, recycling accounted for about 22 percent of total supply. The growth of recycling will result from an increasing share of the can market and increasing use of aluminum in motor vehicles. Can reclamation in 1978 was estimated at 6.9 billion cans, or more than 300 million pounds of aluminum. Collection centers in the United States now number 2,400, compared to 185 in 1970. Recycled aluminum is mainly used in the production of castings.

Greatest resources

Unlike the supply of aluminum, copper resources in the United States generally make the nation self-sufficient. While some refined copper and ore are imported, the United States produces and draws from stockpiles more than it uses. This factor may change as demand rises, but the United States has the greatest copper resources in the world. Other major producing countries, in order of output, are the Soviet Union, Chile, Canada, Zambia, and Zaire.

Copper was the first nonprecious metal to be used by man, beginning with brass and bronze alloys in Sumer in 4000 B.C. The largest use of copper today is in electrical and electronic equipment and supplies. Electric motors, power generators, fans, blowers, and industrial controls all need copper for optimum performance. Although aluminum is used for nearly all high-voltage overhead power transmission lines, copper is widely used in underground lines and dominates the smaller gauge wire market.

During the past decade, the aluminum and copper industries clashed over use of their products for household wiring. In 1977, the Consumer Product Safety Commission filed a lawsuit—still pending in the courts—that led to the repair or



replacement of aluminum and electrical devices in about 1.5 million homes wired between 1965 and 1973.

The commission claimed that aluminum wiring was a fire hazard. During the 1970s, aluminum's share of the wiring market plummeted from 17 percent to 1.4 percent.

The Commerce Department reports that shipment of refined copper in 1978 was valued at \$3.6 billion, up 0.15 percent over the previous five years. The industry employed 14,000 people, down 3.8 percent over five years.

Analysts are optimistic about the long-range outlook for copper, especially with increased uses in electronics, solar energy, and electric vehicles. The demand by 2000 may even strain supplies. The short-term outlook, however, is not so good.

Domestic producers

While the United States has been the leading producer of copper in all but one year since 1883, lower priced imports, which have increased sharply since 1975, are now forcing domestic producers to cut prices. This has reduced profits and incentive to increase capacity. U.S. production and consumption are not expected to increase significantly until 1983, according to Commerce Department analysts.

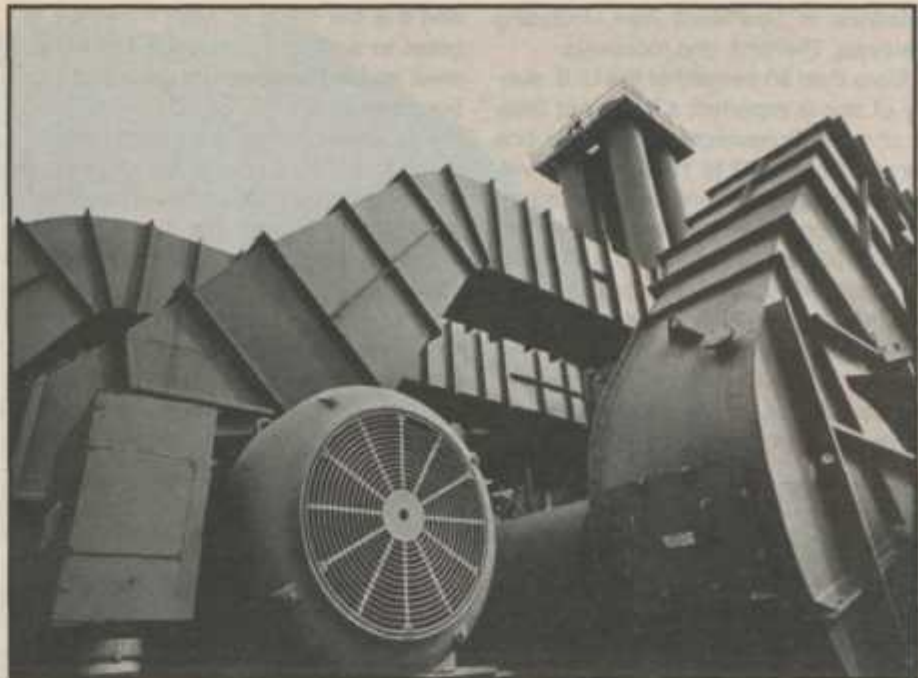
U.S. producers are fighting the market effects of imports. For example, to eliminate the price advantage of foreign producers, some U.S. companies—Kennecott Copper Co. was the first—have set prices at a fixed premium above the New York Commodity Exchange price.

Also, to increase productivity, a fabricating subsidiary of Kennecott, Chase Copper & Brass Inc. of Cleveland, Ohio, is developing a new rod-casting process that cuts the average time for producing brass and other alloy strip from 40 days to 40 seconds. The firm says that the process reduces capital costs from 85 cents to ten cents per pound.

Storage batteries

Like copper, lead is also found abundantly in the United States, principally in Missouri. In terms of tonnage, lead ranks after aluminum, copper, and zinc. Its major use is in storage batteries, like those in automobiles. In 1978, 61 percent of lead production went into batteries, up from 41 percent in 1970.

Battery use of lead is expected to increase, despite the fact that the amount and type of lead used are changing. The trend is toward smaller cars with smaller engines that need smaller batteries to



Environmental control costs are a major problem for the aluminum industry. This complex equipment filters air at a Reynolds Metals Co. plant.

start them. Additionally, more efficient grid patterns in batteries are reducing the amount of lead needed. In maintenance-free batteries, traditional antimony lead is replaced with lighter weight calcium lead. Without reducing power output, say experts, the change to calcium lead can cut battery weight from 40 to 28 pounds.

Offsetting these changes are increased use of diesel vehicles, which need larger batteries to start them, battery-powered electric vehicles, and emergency power storage batteries for hospitals, stores, offices, and computer facilities where power interruption can be costly.

Gasoline additive

In 1978, the shipment value of lead, according to the Commerce Department, was \$805 million, up 5.7 percent over the previous five years. Employment in the lead industry totaled 3,200, up 1.3 percent over the same period.

While all major markets for lead declined in 1978, compared with 1977, both production and consumption are predicted to increase slightly through 1983.

The future of the lead industry, say analysts, depends to a great extent on environmental and health regulations and on developments in the battery market.

Tonnage of lead for batteries was down 1.6 percent. Tetraethyl lead, a gasoline additive, was down 16 percent, and greater declines are expected as environmental and health regulations

take effect. Lead for other uses such as ammunition, construction materials, solder, and pigments was about the same amount as used in 1977. Lead use in pigments and ammunition is expected to decline this year with tightening federal regulations, but those reductions will be more than offset by increases in solder and sheet metal.

Foreign sources

Like aluminum, tin is a major import—85 percent of primary tin requirements come from foreign sources. But unlike aluminum, perhaps largely because of aluminum, tin has declined in consumer use at an average annual rate of 1.5 percent since 1950. The Commerce Department says that the continuing reduction of the amount of tin in tinplate and solder, the two principal uses of tin, are expected to offset any gains in other markets.

However, the growing success of the two-piece can has reversed tinplate's decline in the can market for the time being. The two-piece tinplate can is more cost-effective than the aluminum can, says the Commerce Department.

Use of tin in bronzes and brasses, tin's third largest market after tinplate and solder, should increase slightly in 1979.

The United States has one tin smelter, Gulf Chemical and Metallurgical Co., located in Texas City, Texas. It refines and smelts about 7,000 tons annually, mostly from ore and concentrates imported from Bolivia. Most U.S. primary tin is imported from the major tin-producing



countries in Southeast Asia, including Malaysia, Thailand, and Indonesia.

More than 50 percent of the U. S. supply of zinc is imported, a figure not likely to change. Consumption rose only one percent from 1977 to 1978, and the value of industry shipments in 1978 totaled \$420 million, down 29 percent over the period 1973-1978.

Despite the industry's lethargy, zinc is the third most widely used nonferrous metal, surpassed only by aluminum and copper. While its applications are not always obvious, zinc is exceedingly versatile. It is important to the auto industry,

and it is the major alloying ingredient in brass as well as a protective coating for steel and a chemical compound in rubber and paints.

The United States is a major consumer of zinc. The construction industry is the major market for zinc-coated material. Galvanizing accounts for more than 90 percent of all zinc used in protective coverings for structural steel, roofing, siding, guttering, and reinforcing bars. Galvanized sheet is the standard duct material for air conditioning, ventilating, and heating systems, and is used in conduits for electrical and telephone wires.

According to the Commerce Department, zinc consumption is expected to grow at an annual rate of up to 3.5 percent by 1983, when it will reach 1.3 million tons. Leading the growth will be galvanizing applications, which will increase at an annual rate of five percent.

While agreeing with the galvanizing growth potential, Anthony Cammarota of the Interior Department's Bureau of Mines says: "For the next 12 to 18 months, zinc will be flat, and it may even be down."

Electric vehicles

One potential boost to the industry is the development of zinc-chloride and nickel-zinc as replacements for lead in batteries. Such development may be speeded up by the need for propulsion batteries in electric vehicles.

Mr. Cammarota points out that zinc may also be used in batteries for power plants to reduce the strain during peak demand times. Power plants generally run at full capacity during the day and slack off at night when the demand falls. With load-leveling batteries, generators could run at near capacity at night and store the energy in gigantic battery systems for use during the day.

While industry executives deal with technology, supplies, and profits, some industry analysts think the biggest problem is found in federal regulations and policies. Lead, copper, and zinc producers have difficulty meeting the dictates of the Environmental Protection Agency. But health and safety regulations are only a start.

National defense

Rep. James D. Santini (D.-Nev.), chairman of the mines and mining subcommittee of the House Interior and Insular Affairs Committee, is more concerned with the effects of supply disruptions on national defense and industrial production. He vows to hold oversight hearings on U. S. metals policy every month—he began in June—until the Carter administration develops new, acceptable policies.

Rep. Santini's solutions include a plan to respond to shortages, a rational stockpile policy, and legislation to encourage deep sea mining of nodules containing manganese, copper, zinc, and traces of other metals.

Rep. Santini equates the supply problems of metals with those of petroleum. "We are extraordinarily vulnerable to disruptions of supply or cartel-like price manipulations," he says. "We are in a state of oblivion when it comes to recognizing this materials vulnerability."



Recycling scrap saves 95 percent of the energy used in making primary aluminum. There are now 2,400 collection centers in the nation, compared with 185 in 1970.

Stockpile Cupboard Is Half Bare

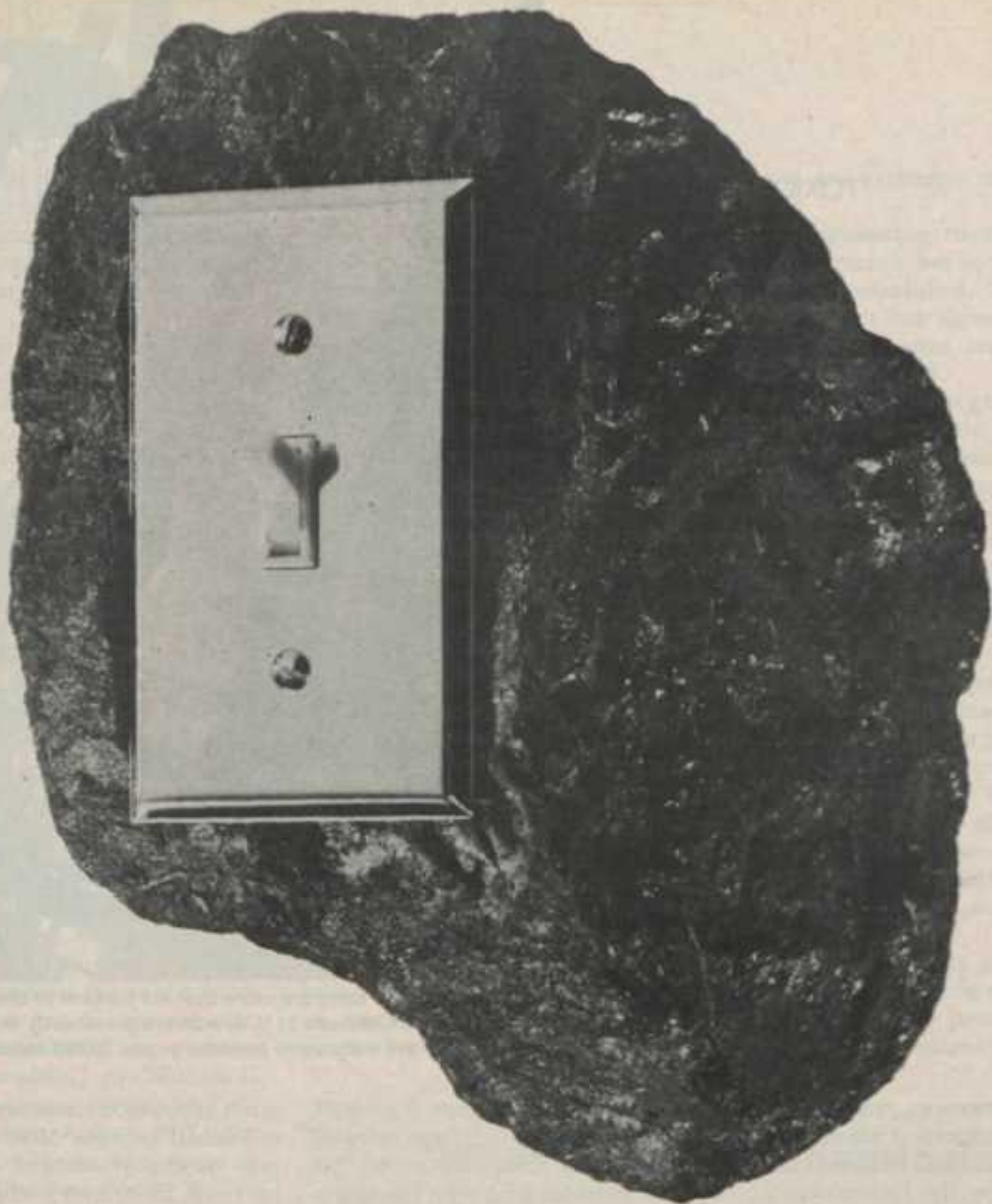
In 1939, Congress passed a law providing for the stockpiling of materials that were critical to industry and the military in times of war and were in short supply within the United States.

Since then, stockpiles have been maintained at various locations; there are 114 in the latest report of the General Services Administration, which is in charge of them.

Stockpiled materials include the five major nonferrous metals—aluminum, copper, lead, tin, and zinc.

The chart shows inventories and market values as of Sept. 30, 1978. All metals are measured in short tons (2,000 pounds = one ton) with the exception of tin, which is in long tons (2,240 pounds = one ton). Values are in millions of dollars.

Commodity	Goal	Inventory	Market Value	Excess (+) or Deficit (-)
Aluminum	6,095,849	3,444,064	N. A.	-2,651,785
Copper	1,299,000	21,693	31.0	-1,277,307
Lead	865,000	601,056	420.7	- 263,944
Tin	32,499	200,473	2,752.7	+ 167,974
Zinc	1,313,000	373,053	244.3	- 939,947



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TOXIC SUBSTANCES
CONTROL ACT

EPA's Formula May Be Hazardous to the Chemical Industry

By William Kroger



Chemical industry sales are more than six percent of the gross national product. Millions of U. S. workers are directly or indirectly employed by the industry to produce or use 70,000 substances.

FOR MOST AMERICANS, reading a list of 50,000 chemicals is not an exciting weekend priority. However, that list, drawn up by the Environmental Protection Agency, may have more impact on American life than oil prices or party politics.

It depends on how vigorously EPA administers the Toxic Substances Control Act, which was enacted in 1976 but began taking effect, for all practical purposes, with publication of the list of chemicals. Critics of the act claim that EPA is bent on shutting down the U. S. chemical industry. Proponents claim that if EPA doesn't push to the limit, the existence of future generations is in jeopardy.

The Toxic Substances Control Act, which covers chemicals before they are introduced into the marketplace, sets up a mechanism that most experts predict will lead to a long, costly, and frustrating attempt by mankind to understand his own technology. At times, that struggle will be akin to the blind leading the blind.

The act is unique, says Steven D. Jellinek, assistant administrator of EPA's Office of Toxic Substances, "because it provides EPA with the opportunity to help prevent problems ... and to deal with them before they become tragedies."

Types of cancer

The most obvious problems are the various types of cancer. Some substances are known to cause cancer. Others are highly suspect. Dr. Marvin Schneiderman, associate director for scientific policy at the National Cancer Institute, told a Senate health subcommittee that most types of cancer are still on the increase, some drastically.

For example, benzene, a major component of unleaded gasoline, is suspected of being carcinogenic when inhaled. Vinyl chloride, commonly used in plastics, has been linked to the deaths of workers exposed to it.

But chemicals protect, prolong, and enhance life. Synthetic fibers replace human tissue; plastic is used in thou-

sands of products, from artificial limbs to football helmets. Most clothes contain varying amounts of synthetic fibers. In fact, every cup of coffee contains up to 20 chemicals.

Chemical industry sales represent more than six percent of the gross national product. Millions of U. S. workers are employed by the chemical industry and companies dependent on it.

So far, chemists have recognized an estimated two million compounds. About 70,000 chemical substances are used in commerce, and 300 to 1,000 new ones are introduced each year.

Mutagenic wastes

Intensifying efforts for federal intervention are incidents such as the Love Canal in New York state where chemicals buried more than 25 years ago seeped out of a dump site and into the basements of homes nearby. More than 200 families were relocated because of the contamination.

Sen. John C. Culver (D-Iowa), chair-

man of the Senate Environment and Public Works subcommittee on resource protection, says that 46 million tons of hazardous waste are disposed of each year, most of it probably improperly.

He adds that there are as many as 2,000 abandoned or inactive dump sites that either may be or are leaking hazardous, toxic, or mutagenic wastes into soils, streams, or groundwaters.

A worried Congress

Worried about such statistics and incidents and encouraged by environmentalists and other concerned citizen groups, Congress has tried to remedy the situation. In the past few years, the federal lawmakers have enacted the Resource Conservation and Recovery Act, which oversees disposal of hazardous wastes; Clean Air and Clean Water acts; Safe Drinking Water Act; Hazardous Materials Transportation Act; Federal Insecticide, Fungicide, and Rodenticide Act, which governs pesticides; and the Toxic Substances Control Act.

"All the bases are covered. If the government can't get you on the water side, it can get you on the air side, sludge side, burn side, everywhere. The loop is complete," says William C. Anderson, managing partner of Pickard and Anderson, Auburn, N.Y., and vice chairman of the environmental division of the American Society of Civil Engineers.

"There is really no way you can take a toxic substance and throw it out the window," he says.

An EPA-funded study by Arthur D. Little, Inc., estimates that testing and providing other data that may be required by EPA could cost as much as \$40,000 for each new chemical. That estimate is conservative, industry experts add.

Fewer new products

The study concluded that at a cost of \$40,000 just to provide government data, "90 percent of the chemicals [known today] would not have been put on the market." One industry expert points out that penicillin would probably have remained in the laboratory.

Robert A. Roland, president of the Chemical Manufacturers Association,

says fewer new products will be introduced as a result of the act.

Most of the regulations implementing the act will take effect this year.

"People should be looking at this list of 50,000 chemicals to see whether the substances they buy and use are on it. They should report any omissions to the EPA," says Douglas J. Bannerman, chief of industry liaison for EPA's Office of Industry Assistance.

A chemical not on the list can be added until the end of this year. Some chemicals may have been overlooked, says Dr. Bannerman. "There's room for error, but after December 31, no more chemicals can be added."

Following publication of a revised list, planned for late 1980, anyone manufacturing, processing, or using a chemical not on the list will be breaking the law.

Far-reaching law

"This could apply even to a small garage operator who uses chemicals to degrease auto parts. The law will be far-reaching," says Dr. Bannerman.

Chemicals not on the list must go through a premanufacturing notification process. This involves filling out complex forms, which may require ex-

tensive and expensive testing to complete.

The notification requirement took effect last month, but no absolute rules have been established. "They've been proposed, but not signed and sealed yet. That's expected late this year," says an EPA official.

Until then, interim guidelines have been established "on how people should report to us about manufacturing a new chemical," says the official. "Essentially, we're telling people to do their best to follow the statutory requirements, and we'll handle each chemical on a case-by-case basis."

Data too costly

Industry and business associations have told congressional committees and EPA that the data proposed to be required under premanufacturing notification are far too extensive and costly, especially for chemicals that will be produced in low volume. EPA recently agreed to consider a less burdensome notice form, but has not resolved the issue.

Another issue EPA is planning to tackle is further testing of listed chemicals that may have potential dangers. Also, EPA may designate a use of an

What's What in Chemicals

It would be a simple matter to say the list of 50,000 chemicals published by the Environmental Protection Agency begins with acid and ends with some relatively unknown compound beginning with Z.

But the list is not arranged that way. In fact it begins with formaldehyde and ends with a complex polymer, which is a mixture of compounds consisting essentially of repeated structural units.

The polymer's name is 2-propenoic acid, 2-methyl-, methylester, polymer with butyl 2-propenoate, ethenylbenzene, oxybis(2,1-ethanedioxy-2,1-ethenediyl) bis(2-methyl-2-propenoate) and 2-propenyl 2-methyl-2-propenoate. The polymer's common name is methyl methacrylate, polymer with butyl acrylate, styrene,

tetraethylene glycol dimethacrylate, and allyl methacrylate.

The list also contains less esoteric items such as slime, sludge, and water. In fact, water is listed both as water and as H₂O.

One exotic item is cashew nutshell liquid. And part of another chemical is familiar: Polymer—with molasses.

The list is not in alphabetical order, but it is orderly. The Chemical Abstract Service of Columbus, Ohio, lists chemicals by registry number on a first-come, first-served basis. When a chemical is invented, it is assigned the next available number and thus registered.

The EPA contracted with the Ohio firm to put together the list of chemicals, which is arranged by CAS registry number.

existing chemical as a significant new use, which would mean that the chemical would have to comply with the reporting requirements.

Chemicals used in small quantities for research, analysis, or development are exempt from many of the act's provisions.

More recordkeeping

Recordkeeping requirements will increase, up to 30 years for chemicals that affect the health of employees. Under the act, EPA can restrict the use of a listed or nonlisted chemical or ban it altogether and can inspect any establishment in which chemicals are manufactured, processed, stored, or held before or after their distribution. Any person who fails or refuses to comply with any requirement under the act may be fined up to \$25,000 a day. Those who knowingly or willfully violate the law may be imprisoned for up to one year.

The cost of all this will be borne by the manufacturer and, ultimately, the consumer.

In addition, EPA is considering test guidelines for new chemicals. "We would try to suggest what tests industry might want to run," says Dr. Bannerman, "but we haven't set down any rules yet [except for proposed standards that would be used in testing



Sen. John C. Culver (D-Iowa) says that 46 million tons of hazardous waste are disposed of each year.

chemicals for chronic human health effects). Test standards are coming. That's the kind of thing that's evolving."

Thomas W. Mooney, manager of technical government relations for Procter and Gamble Co., says that testing guidelines "tend to become the norm with both the regulator and the regulated. They have the effect of dampening new or innovative ways to improve testing." He adds that testing is good and necessary, "but how much?

It shouldn't be zero, but also not everything."

Mr. Anderson, of the American Society of Civil Engineers, states the problem simply: "We engineers and scientists don't know a lot about exactly what is a hazardous or toxic waste, yet the public is demanding solutions tomorrow."

"EPA's approach is virtually to eliminate the engineer's judgment on solid waste. EPA says you will locate a disposal site in one area without even listening to the private engineer. When EPA comes out with regulations, there isn't any room to apply judgment."

"It's too much, too stifling."

Strong regulations needed

However, biologist Paul Ehrlich, Bing professor of population studies at Stanford University, feels strong regulations are necessary. "I have to face the problem of government regulations right here in my laboratory ... but I would rather have them than not have them," he says.

Dr. Ehrlich says it is extremely difficult to evaluate any threat from a new chemical. "If you take a compound and demonstrate it isn't carcinogenic, you still don't know what it might do in combination with other compounds that also may not be carcinogenic. No amount of testing is going to answer all the questions."

"We need to slow down and see what is going on. We should ask what is really valuable."

Dr. Ehrlich says a missing element in the debate over toxic substances "is that they constitute an assault on the life support systems of this planet." He says release of low levels of toxic substances can gradually hurt these ecological systems. "We should be extremely conservative. These systems are vital to our survival and that of future generations."

Biting off a lot

Fred D. Hoerger, director of regulatory and legislative issues for Dow Chemical U. S. A., says: "EPA is biting off so much that the impact on improving health or the environment may not be very significant. EPA is rapidly getting into too much bureaucracy."

The next few months are crucial to the outcome of the toxic substances act, he says. "Much depends on whether or not industry gets involved in bringing the controversy to some kind of conclusion. We've got the law, it's not going to go away."

Impact on Small Business

Those who may be hurt the most by strict administration of the Toxic Substances Control Act are the smaller chemical firms.

Sen. John C. Culver (D-Iowa) says the "chemical industry is comprised of a few giants and a majority of small and middle-sized firms."

The number of small chemical companies in the United States is estimated at 1,500 to 2,000.

One of them, the Aldrich Chemical Co. of Milwaukee, Wis., has recommended to EPA that chemicals produced in small quantities be exempt from the premanufacturing provisions of the act, "if a product is relatively nontoxic."

The firm lists more than 9,300 research chemicals in its catalog and produces 20 to 30 new chemicals each year.

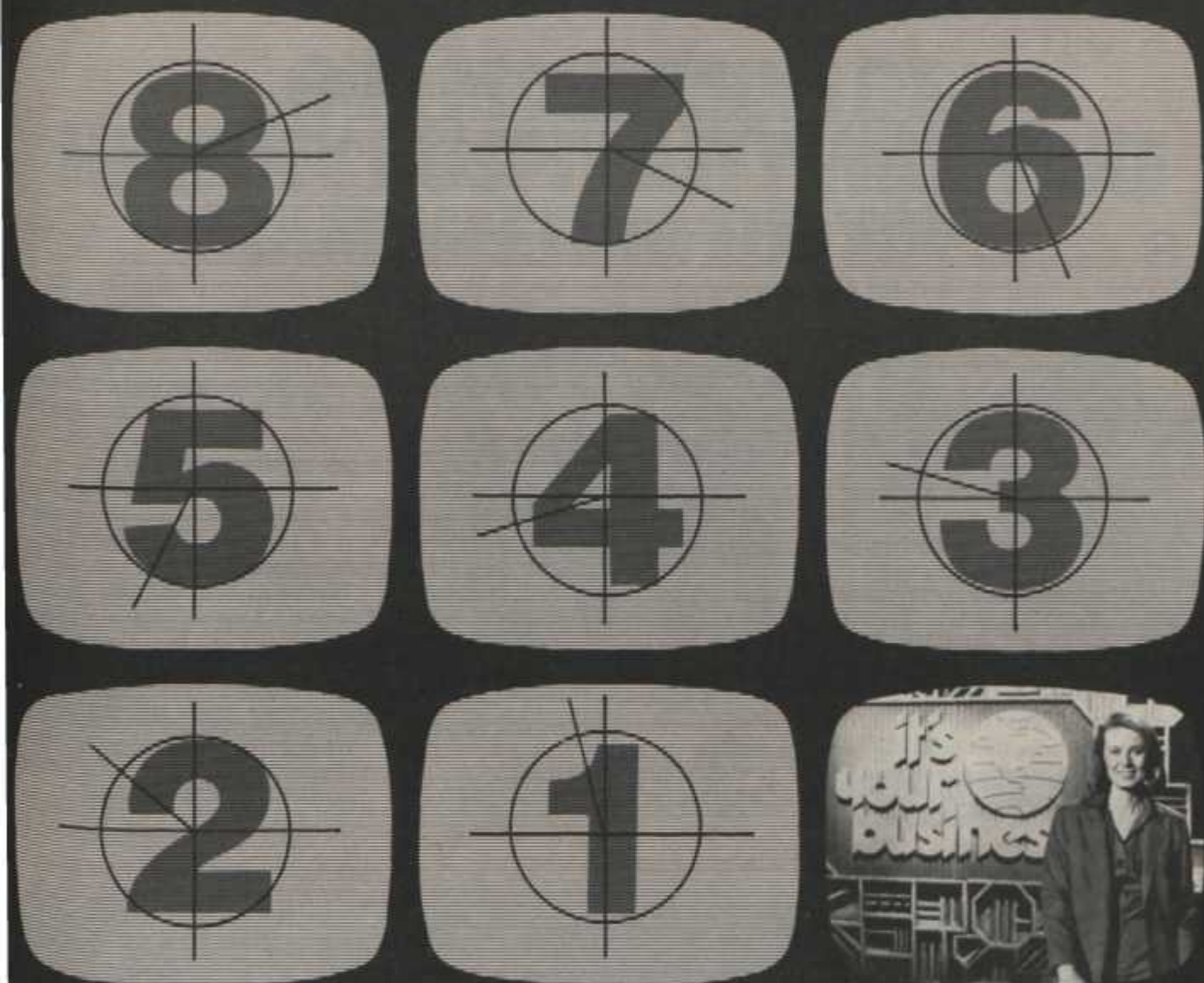
Most of its commercial chemicals are produced in quantities smaller

than one ton, and each costs less than \$10,000.

"These are small orders, and we have no assurance that additional orders will result," says Bernard E. Edelstein, executive vice president and secretary of the Aldrich Co.

He says that requiring chemicals produced in small quantities—which are sold to industrial users, not consumers—to go through the premanufacturing notification process could add thousands of dollars to the cost of each.

"The smaller manufacturer of chemicals may suffer," because of the act's administration, says an EPA official. "The law is going to be expensive, and it will cost the same amount of money whether the firm is large or small. The big question mark at this point is how these regulations are going to impinge on the small business community."



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Should Private Opinions Get Air Time?

SHOULD TV NETWORKS sell time for private opinions?

The U. S. Supreme Court has ruled that corporations are entitled to the right of free speech. Yet, the three major commercial television networks have turned down advertisements by two corporations that wanted to express their views on today's issues.

Kaiser Aluminum & Chemical Corp. sought to buy network TV time for three commercials dealing with energy, free enterprise, and government red tape. Mobil Oil Corp., whose advocacy advertisements in newspapers are well known, was similarly rebuffed.

The underlying reason for the networks' rejection is the Fairness Doctrine, a rule formulated by the Federal Communications Commission. The doctrine requires that radio and television stations, as well as networks, give equal time to persons or organizations

to express opposing viewpoints. The problem is that if a corporation's commercials advocating specific opinions are aired, the network or station would have to give a reasonable opportunity to reply to groups advocating opposite opinions, whether or not the groups bought that time.

"We believed at the time that we were exercising our right to speak our mind," the Kaiser Aluminum & Chemical Corp. says. "We were willing to pay for the air time to run these commercials, and we clearly identified these messages as opinions of our company."

An American Broadcasting Co. spokesman says: "Our news and public affairs programming sections deal with such subjects. Those who have the money could control the ideas or the agenda-setting debate if we did not have the Fairness Doctrine."

In the opinion of the National

Broadcasting Co., "you get into a terrible public interest problem when you start selling commercial time for private viewpoints—irrespective of what they are or who are the sponsors."

The Supreme Court decision overturned a Massachusetts state law that prohibited corporations from buying advertisements to influence the electorate on referendum issues.

In 1976, five Massachusetts companies sought to publicize their opposition to a proposed amendment to the state constitution.

The companies and the National Chamber Litigation Center, which entered the case as a friend of the court, argued that the First Amendment permits the expression of opinion on public issues by business organizations.

What do you think? Should television networks sell air time for private groups to express their opinions?

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Inflation Is Pinching Harder

American consumers are worrying more and more about inflation's impact on their real income, according to the quarterly consumer survey conducted by the Gallup Organization for the Chamber of Commerce of the United States. Concern about making ends meet intensifies consumer reactions to the gasoline shortage.

Almost three fourths of the 1,511 consumers interviewed across the country think that the energy situation is serious, but 69 percent believe that there is enough gasoline without allowing prices to increase through decontrol.

Asked if they prefer increased fuel and gasoline prices or rationing to reduce consumption, 44 percent prefer rationing, 25 percent favor increased prices, while 21 percent said neither is a good idea.

Hard-pressed consumers

The fact that consumers feel hard-pressed by inflation and taxes may account for the greater support for rationing rather than price increases.

Fifty-seven percent of consumers expect their incomes to rise less than

prices during the next 12 months, and 56 percent expect their taxes to increase over the same period. Moreover, 53 percent expect inflation to get worse during the coming year, while 33 percent expect it to be the same, and only eight percent expect it to decline.

Forty-one percent of consumers now view their financial situation as worse than it was a year earlier, while 30 percent see themselves as better off. As recently as December, these figures were almost exactly the reverse.

Consumers who see their real income declining view profits in the same context as rising prices. It is not surprising that 60 percent of consumers think corporations are making more money than they should, while 17 percent think corporate profits are reasonable.

Forty-six percent favor a windfall profits tax on the production of crude oil; 29 percent oppose the tax.

Although a large majority of consumers think corporate profits are too high, 33 percent look to business firms to improve their economic well-being.

Consumers were asked which—busi-

ness firms, government, or labor unions—contributes most toward improving the standard of living for the average person. Only 14 percent think government contributes most, while 29 percent give the most credit to business firms, and 33 percent choose labor unions. Almost a quarter replied that they didn't know.

Questioned on spending

Consumers were asked: "From the standpoint of improving the economic well-being of the average person, which do you think is likely to be most helpful and effective—an additional dollar spent by the federal government, an additional dollar spent by business firms, or an additional dollar spent by consumers?"

Business firms	33%
Consumers	21%
Federal government	18%
Don't know	19%

Nine percent of those interviewed volunteered the answer that spending should not be increased; those consumers refused to make a choice.

Expected Inflation Growth

	Aug. 1978	Dec. 1978	Mar. 1979	Jun. 1979
Higher	49%	42%	54%	53%
Same	37%	42%	34%	33%
Lower	6%	12%	6%	8%
Don't know	8%	4%	6%	6%

Expected Changes in Consumer Incomes

	Aug. 1978	Dec. 1978	Mar. 1979	Jun. 1979
Income Will Rise:				
Less than prices	49%	52%	52%	57%
Same as prices	33%	33%	31%	29%
More than prices	10%	10%	9%	8%
Don't know	8%	5%	8%	6%

Expected Tax Burden

	Dec. 1978	Mar. 1979	Jun. 1979
Higher	52%	59%	56%
Same	28%	27%	29%
Lower	14%	6%	7%
Don't know	6%	8%	8%

Consumers' Personal Financial Position

	Compared With One Year Ago			Estimate for One Year Ahead		
	Better	Same	Worse	Better	Same	Worse
December, 1978	40%	26%	32%	47%	26%	22%
March, 1979	35%	31%	31%	39%	28%	22%
June, 1979	30%	27%	41%	33%	27%	30%

Federal Nurturing for Female Entrepreneurs

AS THE AIRPORT CAB pulled up to the southwest gate of the White House, the driver saw groups of women entering the grounds and asked his passenger if the President were hosting a fashion show.

Stepping out of the cab, Patricia Clorerty, businesswoman and former deputy administrator of the Small Business Administration, explained that it was a different kind of fashion show, not of attire but of initiative. The businesswomen were there to participate in the signing of a presidential order establishing a women's enterprise policy.

The new policy, an outgrowth of a two-year federal effort to help female entrepreneurs, sets up a 16-agency committee within SBA to promote women's enterprises. The committee will have a professional staff and will use both government and business as resources to develop more female entrepreneurs.

Reverse example

"Government almost always mirrors that which happens in the private sector," said President Carter before the Rose Garden signing. "In successfully implementing this policy, we can set a reverse example."

The new policy calls for cooperation with the private sector in seeking more venture capital for women business owners, increasing their marketing opportunities, and enhancing their technical know-how.

The committee will also create new educational programs, new federal procurement policies, and a data base for information on female entrepreneurs.

The predecessor to the committee, an interagency task force on women business owners, reported to the President last year that only 4.6 percent of all U.S. businesses were owned by females. The data, collected in 1972, also showed that of the 402,000 female-owned firms, total annual receipts of

\$8.1 billion were only 0.3 percent of all U.S. business receipts.

In response to the interagency task force findings, President Carter asked department and agency heads to develop their own affirmative action plans and to work in tandem with the new committee.

A memo from the President discloses the following:

- SBA has agreed to channel \$50 million in direct loans to female-owned businesses and will set up an experimental loan program for businesses requiring under \$20,000 to start up or expand. Both programs will take effect in fiscal 1980.

- SBA will also increase its attempt to add 15,000 women-owned firms to its Procurement Automated Source System—PASS—by the end of fiscal 1980.

- The Office of Federal Procurement Policy has agreed to double the dollar amount of federal prime contracts to women-owned firms to at least \$150 million in fiscal 1980 and redouble it in the following year.

- The procurement policy office will also establish a data base on female entrepreneurs who do business with the government, encourage prime contractors to subcontract to female-owned firms, and explore the idea of dollar incentives to prime contractors who use female-owned firms as subcontractors.

- The Department of Health, Education, and Welfare will develop new programs for both public and private schools to explain entrepreneurial skills and business enterprise as career options for women.

Patricia Harvey, committee chairwoman and deputy assistant secretary of the Treasury Department, says the committee will concentrate on developing priorities for the first two to three months.

Because of increasing duties at Treasury, Ms. Harvey is not sure whether she will continue as chairwoman. If she steps down, President Carter will have to appoint a new committee head.

The committee's operating budget is unsettled as yet. Ms. Harvey says she



Surrounded by some of the women who worked for two years to develop a federal effort to help female entrepreneurs, President Carter signed an executive order setting up a 16-agency committee to promote women's enterprises.

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first wants to develop a strategy, then ask for more money.

"We'll be taking a fresh look at government programs, including procurement, loans, and management assistance for women in business," says Ms. Harvey, "to determine just what we need in terms of funding."

SBA pledges funds

The committee has been promised an additional eight to ten professional and clerical workers, and SBA Administrator A. Vernon Weaver has pledged to channel funds from other SBA programs to help subsidize the committee through this fiscal year.

In addition, the executive order directs each federal agency to name a high-ranking department official to be responsible for creating programs, goals, and target dates, and channeling contracts, loans, and other assistance to female-owned firms.

However, says Ms. Harvey, "we don't want to treat the federal government as the financial source for women in business. That must come from the private sector."

Rona F. Feit, executive director of the committee and special assistant to the chief counsel for advocacy within SBA, explains that the committee will set up meetings in Washington and around the country to foster cooperation with financial institutions.

"We will urge them to make more small business loans to female entrepreneurs, support tax incentives for investing in female-owned enterprises, and find new ways to raise capital for starting and expanding female-owned firms," she says.

"The committee will also consult with lawyers, accountants, and insurance agents for advice and will encourage major companies to increase subcontracting to female-owned firms."

Business for America

The committee, she adds, will urge that women join local business organizations such as chambers of commerce.

"Women entrepreneurs mean business for America," says Dona O'Bannon, president of the National Association of Women Business Owners, an organization representing 600 female-owned U.S. businesses.

"Their success will contribute to the economic well-being of this country. The President's executive order reinforces his continuing partnership with women business owners in making sure they have equal access and opportunity in federal contracting."



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Press Freedom? Maybe a Little Too Much

FREEDOM of the press. The first freedom guaranteed to Americans under the Constitution, a freedom historically accepted as nearly absolute, is now being questioned in the courts.

In June, NATION'S BUSINESS asked its readers if they felt that the press had too much freedom. The responses were split, with a slight edge to those who felt that the press was perhaps a little too unrestrained.

Charles C. Hager, president of Catalyst Technology, Inc., Buckner, Ky., says: "The enormous power of the modern media makes it essential that this power not be abused to further only the viewpoint of the media. The real worth of any information is its objectivity."

Mr. Hager says that it is the "press's responsibility to report the news regardless of whom is helped or hurt by it. It is the people's right to react to situations which affect them." But, he adds, the people are almost entirely dependent on the media for information.

Although a firm believer in freedom of the press, Delmar E. Gatzke, resident manager of the West Bend Co., Sheridan, Ark., feels it often oversteps its bounds. "I am strongly opposed to the media's apparent disregard of the responsibility that freedom requires. Honest, responsible, and factual reporting is essential for the preservation of the First Amendment."

James T. Anthony, assistant vice president of the Olney Federal Savings & Loan Assn., Abington, Pa., agrees. "There is obviously too much freedom when stories that cause more harm than good are printed. Oftentimes, the decision of whether or not to run an article is decided by someone whose job depends upon creating controversy, good or bad."

Jim Davis, editor of the *Plainview Reporter-News*, Plainview, Texas, came out on the side of the press. "If I were a businessman who stole or who made shoddy and dangerous products, I might think the press had too much freedom. Or if I were a public official who was competent only at getting elected, I might think that the press had too much freedom. But if I were an



Ted Powers, director of public affairs, WDBJ-TV, Roanoke, Va., says that if the press has too much freedom, so do the American people.



Jack Foley, president of Jack Foley Realty, Inc., Bethesda, Md., says that no one can effectively challenge the ominous power of the press.

honest, productive person who had nothing to hide, I don't think I would worry about the press having too much freedom."

"Notwithstanding occasional abuses, our press, especially through investigative reporting, has substantially contributed to the sanest, healthiest, freest society in recorded history," says Gavin P. Murphy, assistant general counsel, J. P. Stevens & Co., Inc., New York, N. Y. He doesn't think the press has too much freedom.

Nor does Richard C. Alter, controller of Stouffer's National Center Hotel, Arlington, Va. He offers a quote from Thomas Jefferson:

"If I had to choose between a free press and no government or government and no free press, I would choose the former."

Paul H. Smith, Jr., president of Paul Smith Contracting Co., Inc., Tampa, Fla., answered yes to the question. He says: "The First Amendment rights of the press should not override the right of a defendant to a fair trial or the right of anyone who has been damaged by libel or slander, accidentally or purposefully, to equitable recovery."

He adds that "a credible and truthful press is at least as important to the welfare of the country as a free press,

and a jury is as good a determiner of truth as we have available."

Dennis F. McClellan, general manager of the National Steel Service Center, Joliet, Ill., agrees that the press has too much freedom. He is concerned that a reporter who knows he doesn't have to prove his facts may be "too tempted to print his opinion and not only factual material."

Frank S. Striffler, president of Fieldstone Inc., McKeesport, Pa., does not think that the press has too much freedom. "Although the press should be held totally and completely accountable for the absolute truth of what it reports, its freedom should not be restricted further in accomplishing that end."

Larry B. Meares, vice president of human resources for Russell, Burdall & Ward Corp., Mentor, Ohio, says that the press doesn't have too much freedom, but it needs a more stringent code of ethics "born of self-government rather than imposed from outside."

He says that "the press has been compared to a physician without a Hippocratic oath who, while well-trained and possessing a sense of duty, would be in error if he randomly went about operating on people without regard for the effects of his procedure."

PHOTO: KALTMAN-PICTO MEDIA

Good Times Roll in the Rainbow Room

Tony May and Brian Daly are connoisseurs of having a good time. They savor the atmosphere that seeps from a 1930s art deco mixture of walls covered with mirrors and plum-colored silk, golden damask draperies, and a majestic two-story ceiling studded with brilliant crystal chandeliers. They tune in to the smooth, sweet sounds of Sy Oliver's band for all seasons. They dine with delight on the delectable dishes turned out by a kitchen that cooks everything to order while producing a thousand dinners on a busy Saturday.

It all happens on the 65th floor of New York City's Rockefeller Center in the fabled Rainbow Room where celebrities like Joan Crawford, Elsa Maxwell, and Gloria Swanson were once weekend regulars.

Mr. May, an immigrant from Italy, and Mr. Daly, an immigrant from Ireland, took over management of the Rainbow Room in 1975 when, as Mr. May explains, "the operation was hurting. Rockefeller Center, from whom we lease, was almost ready to sell the tables and chairs; 1973 and 1974 were tough years.

"The first thing we did was reintroduce live music—the Rainbow Room had been danceless since Pearl Harbor. We were lucky in our timing. The worst of the recession was over, and we caught an economic upswing."

The partners, who are as different as pasta and potatoes, are symbiotic in their approach to how people have a good time. "We offer a complete evening," says Mr. Daly. "You can have cocktails while enjoying the view, dine and dance, and then retire to the Rainbow Grill for a nightcap and entertainment, the sort of show revue you might catch in Paris or Madrid. Where else in New York can you spend four to six hours in one place for an evening without dropping a small fortune?"

Adds Mr. May: "The Rainbow complex is a unique environment. It's ideally suited for the big occasion—weddings, birthdays, anniversaries—whenever people want to go out and celebrate something. It's also ideal for entertaining out-of-town visitors."

But only tourists go to the Rainbow



Brian Daly and Tony May have a fail-safe recipe for good times in the Rainbow Room.

Room, right? And what native New Yorker wants to go where the tourists go, right? Wrong, says Mr. May.

"The word tourist has an unfortunate connotation of some hick from the country who doesn't know anything. But that creature is a vanishing species. Tourists today are sophisticated people. I hope more of them come to the Rainbow Room."

Besides, adds Mr. Daly, who began his restaurant career washing dishes in Dublin, the tourists enjoy the best things any city has to offer. "How many New Yorkers have been up to the top of the Empire State Building?"

In addition to the tourists, the Rainbow Room attracts today's luminaries such as Diana Riggs, Ted Kennedy, Dick Cavett, and Barbra Streisand.

Zero Mostel danced a hora at the opening party for the Broadway produc-

tion of *Fiddler on the Roof*. Elizabeth Taylor and Richard Burton swirled gracefully around the revolving blond parquet dance floor beneath the beehive crystal chandelier.

And the folks from Duluth, Denver, and Düsseldorf had a good time, too.

The Bottom Line Is Free Enterprise

Arch L. Madsen lost \$10,000 worth of bank advertising because of an editorial broadcast by one of his company's radio stations.

"We said that taxpayers' money should not be sitting in bank accounts that paid no interest," says Mr. Madsen,

who is president of Bonneville International Corp. "Citizen pressure caused the state to change its financial practices. And the banks got over being mad. All the advertising came back."

Bonneville, which owns radio and television stations in New York, Chicago, Kansas City, Dallas, Los Angeles, San Francisco, Seattle, and Salt Lake City, flaunts other fundamental rules besides the cardinal canard of "don't upset the advertiser."

For example, Bonneville management puts the goal of profitability after three others: Community service is first, followed by personnel development and quality programming.

Profits have not suffered, however. "In Los Angeles, we compete with 70 radio stations," says Mr. Madsen, whose headquarters are in Salt Lake City. "We're number one. In New York, we compete with 60, and we run first, second, or third. Sometimes we slip to fourth."

But nobody is fired for slipping to fourth because "doing good and turning a profit is sometimes a difficult combination."

Community service means more than just contributing to the United Way or broadcasting public service announcements. "Our stations are locally oriented," says Mr. Madsen. "The stations should be as much a part of their communities as the local schools and churches."

Quality programming sometimes means judicious editing. Mr. Madsen, whose company is owned by the Church of Jesus Christ of the Latter-day Saints, offers no excuses for deleting objectionable lyrics in popular songs aired by Bonneville stations. "Our goal is to in-

form and entertain our listeners and viewers, not to offend their sensibilities," he says firmly.

Disseminating information about the present issues facing the country is more important to Bonneville than popularity ratings. "In the midst of an informational horn of plenty," says Mr. Madsen, "this nation is starving. The people are economic illiterates."

"Under Secretary of Commerce, Luther Hodges, said once that less than five percent of the adults in the United States knew enough about economics to vote intelligently."

"Our stations offer guest editorial time. Yet very few businesses take advantage of that chance to explain their side of the story."

Mr. Madsen scores business people who remain mute on economic issues. "They seem to care for nothing but the bottom line," he says, "ignoring the bottom line below the bottom line: The preservation of our free enterprise system that makes all the bottom lines possible."

Beauty Is in the Soul of the Carpet

Doris Leslie Blau does not laugh at the New Yorker cartoon of two men sipping cocktails. Underneath their feet is an Oriental rug. One says to the other: "My portfolio? You're standing on it."

For Mrs. Blau, antique Oriental rugs are a living—she owns a New York City gallery—and her life. "It isn't just investment," she says forcefully. "It is having an emotional reaction to something that is exquisitely beautiful, that gives you a warm glow every time you look at it."

"I go to a museum and I see Andy Warhol paintings. Everybody loves him. I can't stand him. \$80,000? No soup can is worth that much."

Mrs. Blau believes that an antique rug has a life force that springs from having been made by hand, often by a family whose skills have been inherited and honed from generation to generation. "And," she says, "there is a personal contact with an antique rug. You walk barefoot on it. There is an intimacy, a sensuality that few other art forms give."

The aesthetic character of treasures that come from places like Kerman, Kashan, and Tabriz in Iran pleases the mind. The economics of owning a portfolio of carpets pleases the pocketbook as well.

Mrs. Blau concedes that part of the



Doris Blau deals with only the finer antique Oriental rugs in her gallery.

fascination of Oriental rugs stems from their investment value.

"Europeans have always known that money is just paper," she says. "Americans are starting to realize this. The government controls what money is worth; it cannot control the value of antique rugs. More and more Americans are realizing that they are better off buying objects than having money in the bank."

A native New Yorker, Mrs. Blau began her business career managing the gift shop at Mt. Sinai Hospital. She opened her own gallery in 1973 in the heart of Manhattan's art and antiques district.

Distinguishing one rug from another is best left to the experts, Mrs. Blau emphasizes, and you don't become expert by reading a few books. The field is so highly specialized that there are few real experts in it.

The only way to buy Oriental rugs is to find a dealer you can trust, says Mrs. Blau, who has inspired the necessary trust in several thousand people so far. She does not deal in new rugs, most of which are made in India and Pakistan where workers copy Persian designs. "Copies never look the same. They don't have that inner aura."

What kind of people spend \$8,000 or \$15,000 on something to cover the floor? Not just the wealthy seeking tax shelters, says Mrs. Blau. "You're middle income, you go out and spend \$8,000 on a new car and a year later, you have a year-old car worth half that much. Or you save a few thousand dollars a year and you watch inflation nibble away at it."

"However, you bring an antique carpet into your home—whatever you can afford—it changes your life, it makes your private world more special, and its value is forever. It's mystical."

As Edgar Allan Poe put it: "The soul of the apartment is in the carpet."



Arch Madsen believes that community service comes before profits.

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Let the Free Market System Work for Energy

PRESIDENT CARTER has exhibited a sense of urgency in finding solutions for our energy problems, both short and long range.

For the business community, which has long advocated positive action, such urgency is soundly applauded.

Disappointingly, the administration's new proposals seem mostly to package old ideas and to rely even more heavily upon government.

In his speech to the nation on July 15, the President took proper note of the massive energy resources in the United States, which amount to 24 percent of the world's supply.

Unfortunately, he made little mention of the realistic steps needed to tap this vast fountain, which could largely cut our dependence on foreign oil.

Most importantly, he ignored the forces of the free market system which has made our economy the envy of the world.

The decontrol of gasoline prices along with accelerating the decontrol of oil prices would go a long way toward providing incentives for the costly exploration for new sources of supply. This would also promote conservation.

Another approach should also be considered—the program offered by the business community, as formulated by the Chamber of Commerce of the United States. As a realistic solution to many of our energy needs, business advocates:

- Accelerating decontrol of crude oil prices, allowing the industry to commit the increased revenues to greater production;
- Abolishing gasoline price controls, which distort the marketplace;
- Relaxing environmental standards to permit increased domestic refining capacity and to boost production of other forms of energy;
- Establishing more realistic regulations on solid waste disposal;
- Making better use of energy sources on public lands;
- Accelerating the direct use and production of coal;
- Reaffirming the nation's commitment to nuclear power;
- Encouraging conservation.

We must be serious about this energy battle, and we should use all the weapons at our disposal. □



Site of the Jacksonville Shipyards, circa 1880.

In 1979, Fruehauf plans to invest a record \$90 million to meet growing world needs.

Fruehauf's commitment to increase capital expenditures for new plants and equipment has become—over the years—an important part of the Fruehauf tradition of meeting our nation's total transportation needs. And the world's.

For example, we've installed one of the largest drydocks on the Atlantic coast to expand our Jacksonville Shipyards. And another at Maryland Shipbuilding & Drydock.

Our rapidly growing market in Asia and the West Coast will benefit from our new Fresno trailer plant. At

the same time, the Paceco plant in Gulfport, Mississippi has been enlarged. And a new Kelsey-Hayes wheel plant in Sedalia, Missouri, has been added.

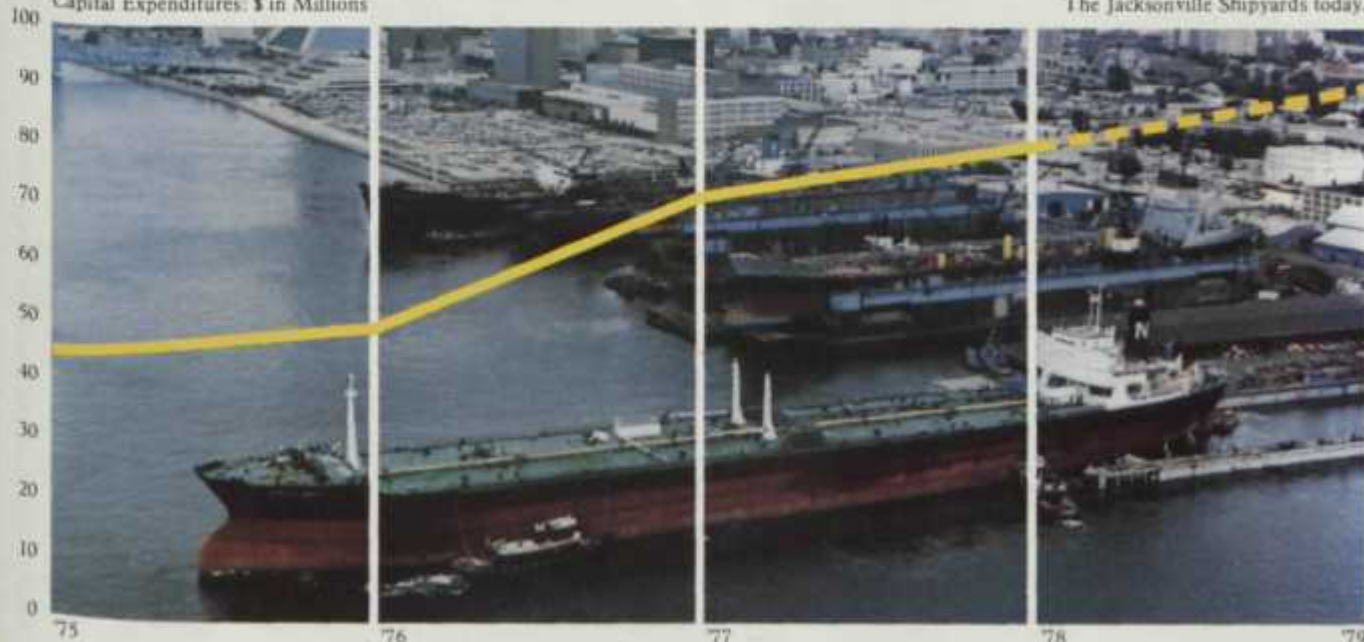
Our Research & Development staff is also working at a record pace in order to find new and better ways of moving goods and products across the country. Across the world.

Find out more about the expanding world of Fruehauf by writing for our annual report. Fruehauf Corporation, Dept. NB-89, 10900 Harper, Detroit, Michigan 48232.

Fruehauf



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